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THE NATION'S SCHOOLS

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Why Men "Crack Up"
Abraham Myerson, M.D.

Our Hollywood Heritage . . *W. A. Wittich*

Big Stick Rule Is Out
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What About Homework?
School Opinion Poll No. 18

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28 Original Articles, 12 Regular Features

OCTOBER . . 1944

The finest and the first in 16mm projectors, with their designer, Alexander F. Victor, whose inventions and improvements over the past 21 years have bridged the gap between the first Victor Ciné Projector (right) and the new Victor Animatophone (left).

International Relations: "After the war we have all got to learn to live together . . . we can't all travel around the world to learn to understand each other . . . we can do it through 16mm film better than any other way," said C. R. Reagan, director, non-theatrical division, Bureau of Motion Pictures, Office of War Information.

Better Education: "This medium of commu tion makes possible . to bring the tru millions upon whom depends the realiz of our democratic goals," declared Dr. C V Arnspiger, vice president of Encyclop Britannica Films, Inc.

16mm BECOMES OF AGE

21 years old August 12, 1944; Born August 12, 1923

NOW 21 YEARS OLD, has the 16mm industry reached its full growth? Are there new horizons of achievement before it?" The answer was given by leaders of education, business, industry, and government as they honored Alexander F. Victor, designer and producer of the first 16mm camera and equipment. The magic of 16mm sight, sound and sequence has already transformed methods of teaching, training, selling and entertainment. But as 16mm Comes of Age, its future will even overshadow its brilliant present. Almost every field of endeavor in every corner of the world will look to Victor who first brought 16mm into being to provide the 16mm camera and projector of tomorrow.

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First in the fight for a safety standard for n theatrical film and equipment, first to design produce 16mm cameras and projectors, A Victor responds to the tributes paid him leaders in education, business, industry government.

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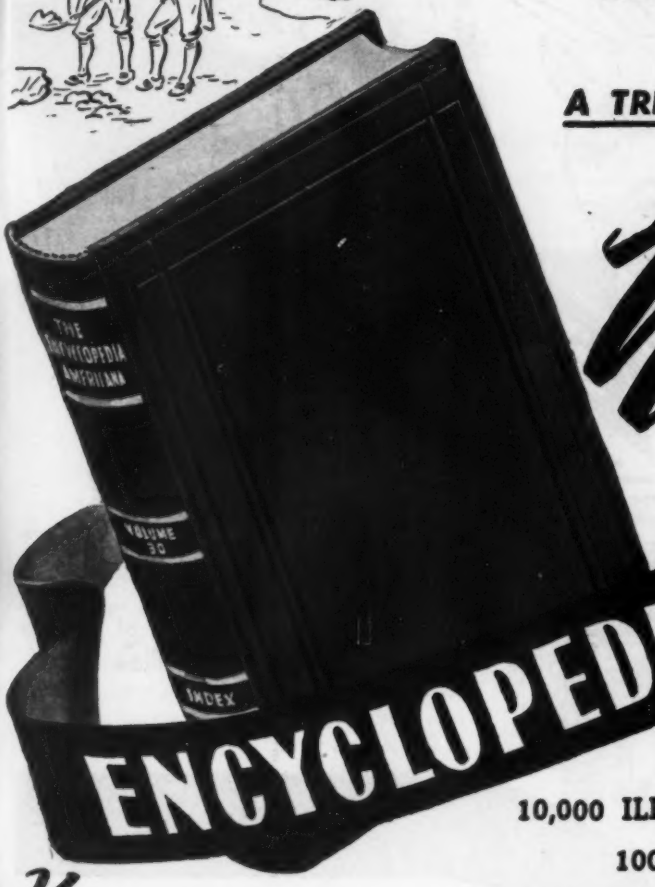

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HEADLINES

PROPOSED LEGISLATION

H.R. 5125, the surplus government property bill, was still in a conference committee of the two houses for the ironing out of differences as Congress recessed on September 21.

The Tarver amendment of the bill, transferring to the Office of Education surplus materials to be allocated to schools on the basis of need provided they established certain eligibility requirements, was defeated.

S. 2051, the George reconversion bill, including provisions for the establishment of a retraining and reemployment administration, has also been referred back to committees of the two houses.

The American Legion voted to ask immediate congressional legislation on a year's compulsory military training for every qualified male American, this to be integrated with his academic education. Following the year's training, each youth would be required to serve a reasonable period in a component unit as provided for in the National Defense Act of 1920.

OHIO PAY RAISES

Following a special legislative session in Ohio, about $8,000,000 in state funds became available for education. Each of the state's 1600 local school boards may now determine for itself how much of a pay increase to grant its teachers. It is expected that the pay raises will average from $175 to $200 a school year. (Story on page 90.)

SOCIAL SECURITY

A project in education about social security has been initiated by the American Council on Education. Training institutions will be held throughout the country in cooperation with local universities and colleges for teachers of social science, businessmen, clergymen, civic leaders and others. (Story on page 70.)

CONSULTANTS FOR VETERANS

Four consultants, chosen because of their familiarity with problems of vocational rehabilitation, have been appointed to counsel and advise the Veterans Administration on matters pertaining to the laws granting courses in this field to former service men and women. (Story on page 78.)

RURAL EDUCATION MEETING

The first White House conference ever held on rural education has been called for October 3 to 5. It is being financed by the N.E.A. and will make recommendations on health education for rural children, curricular and extracurricular programs, modernizing school plants, advancing teacher qualifications and other matters. (Story on page 68.)

PLANNING FOR VETERANS

Under the leadership of the American Council on Education, the various accrediting associations of the country are cooperating on a plan for awarding credits for work done in the armed forces. Several states are making surveys and taking inventories of their educational situations with respect to their postwar use. (Story on page 84.)

WAR'S EFFECT ON COLLEGES

The committee on education of the House of Representatives has completed a study of institutions of higher education to see what effect the war has had upon them. The recommendation is made that federal funds be appropriated only if necessary to maintain institutions at a high level. Payment to schools should be made only for services rendered in the national interest. (Story on page 72.)

N.Y.A. PROPERTY

N.Y.A. equipment, formerly held on loan by schools, becomes the property of the institutions in which it is located, according to the appropriations bill for the Federal Security Agency. (Story on page 74.)

POSTWAR INFORMATION

A Postwar Information Exchange has been established in New York City made up of staff members of more than 40 research and educational agencies dealing with national and international postwar problems. Its monthly bulletin makes available the pooled information of the members, useful to teachers, discussion leaders and others. (Story on page 84.)

FM BROADCASTING

The N.E.A. is prepared to defend education's needs for frequency modulation broadcasting at hearings before the Federal Communications Commission in late September. The N.E.A. asserts that education must have a minimum of 15 channels. (Story on page 74.)

"ALL THE CHILDREN"

The recent issue of that handsome annual report of the superintendent of schools of New York City is being sent by O.W.I. to Algiers, Cairo, Chungking, Rome, Sydney and Tunis and condensed versions are being dropped behind enemy lines.

CHICAGO DISPUTE

Following a "no-transfer" order made by Supt. William H. Johnson of the Chicago public schools, 10,000 children are being kept out of classes by their parents. A grand jury investigation of the order is being sought. Meanwhile, on September 22, a dynamite bomb was tossed into the enclosed porch of Johnson's home where it exploded.

For full news coverage of the month, see news section beginning on page 68.

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The Roving Reporter

Pupils Meet County Officials

Boys and girls of the rural schools in Dallas County, Iowa, recently had a chance to see and hear their various county officials in person at a citizenship day program at Adel. Each county officer gave a three minute talk on his particular duties. Afterward, pupils made a tour of inspection of the courthouse, the jail, the high school, the news office, the library and the electric plant. Music and a "March of Time" sound movie rounded out a day that was interesting and instructive.

Guard Against Robberies

School robberies constitute a real problem. According to an Iowa superintendent, "A school with its typewriters, shop tools, money, motion picture machines and electric motors is a robber's paradise at this time when such items are not available for purchase by the average consumer."

The *Bulletin* of the Iowa Department of Public Instruction urges that all schools make themselves as theftproof as possible and that they do not leave tempting amounts of money in unguarded school offices. These should be reduced to a minimum. Care should be taken to see that all locks and fastenings are secure and arrangements for regular patrol service should be made, whenever possible. Every attempt should be made to solve thefts which occur and school authorities should use every means to discourage school burglary and make it unprofitable.

Come Back to School

There were many pupils in Vinton County, Ohio, as in other rural districts throughout the country this summer, who had to weigh the question of whether or not to return to school this fall. A friendly and understanding letter from the county superintendent of schools, D. M. Bryson of McArthur, Ohio, gave them several well-formulated arguments for continuing their education. Mr. Bryson wrote:

"The time for the opening of the 1944-45 school year will soon be here. No doubt many of you are already making plans for the coming year. Some of you are looking forward to graduation next spring; some of you will be entering high school for the first time.

"I cannot impress upon you too firmly the need for you to continue your education in the public schools. At a time like this, when it is possible for almost any young person to find employment, you are confronted with the problem of whether to continue in school or drop out and get a job.

"While you and your parents are solving this problem, you should give some thought both to yourself and to your country. Ours has been a great, democratic country. This has been due, at least in part, to the fact that we are an educated people who have through the years been given the opportunity of mental development unhampered by regimentation and dictatorship.

"At a time like the present, it becomes vitally important for you to prepare yourself for the job ahead. That preparation can best be obtained in the public schools where you will be provided with the opportunity for self-improvement.

"If you are under 16 you must attend school. If you are between 16 and 18, you must attend school unless you have an Age and Schooling Certificate. You and your parents should think through the matter very carefully before deciding to discontinue your schooling."

School Canning Center

Instructions in canning were made available during August at the high school at Sewanhaka, L. I., to residents of the district. The school has a number of pressure cookers and other pieces of equipment which were placed at the disposal of local housewives at no charge. Each canner, however, had to bring her own jars and seals. In addition, any group of women who could organize and find a meeting place was given use of the school's equipment and free instruction.

Group Studies Problems

In the area around New York City about 50 school systems are members of what is known as the Metropolitan Study Council. For the last two or three years the superintendents from these schools, and often other members of their organizations, have met together to discuss the emerging problems of education. Authorities in different fields have been invited to attend these meetings and present points of view which schoolmen should have in order to attack their problems.

Ray E. Cheney, superintendent of schools at Elizabeth, N. J., feeling that it would interest other school superintendents to see an organization, such as the Metropolitan School Study Council, in action, invited the executive committee of the council to chairman a meeting of local superintendents and handle the program just as is done at council meetings. A. L. Threlkeld, council president, and the chairmen of his standing committees accepted the invitation and put on an interesting demonstration for the local superintendents.

School Board Makes Survey

Taking its cue from the questionnaire used in The NATION'S SCHOOLS survey on postwar building equipment and materials, the board of education at Highland Park, Ill., got out a questionnaire of its own. It consists of seven mimeographed pages stapled at the sides containing questions on matters of repair needs, maintenance, possible remodeling and new building and was sent to teachers. A sample page is shown below.

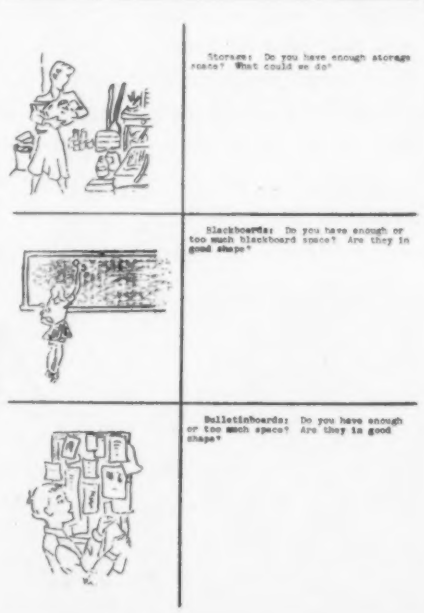
There are three questions to a page, such as:

Ventilation: *Is the ventilation in your room adequate? Do the windows work properly? Suggestions?*

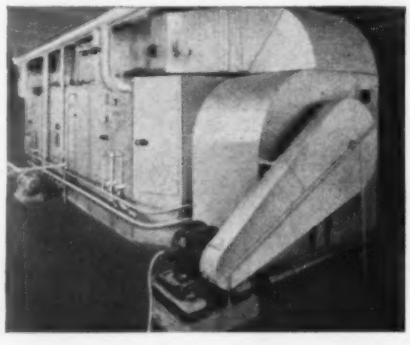
Heating: *Is your room warm enough? Too warm? What should we do?*

Acoustics: *Is your floor noisy, ceiling noisy? What would you suggest?*

Each question is accompanied by an eye-catching illustration drawn by a staff member and there is space for replies. The school architect worked out the questions and the information received will be given careful consideration in planning repairs, remodeling, building.

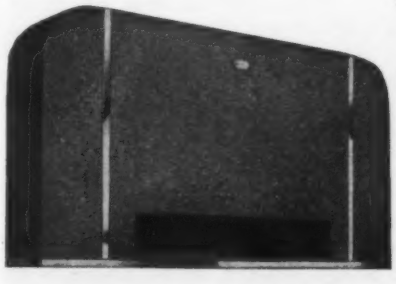

Storage: Do you have enough storage space? What could we do?
Blackboards: Do you have enough or too much blackboard space? Are they in good shape?
Bulletinboards: Do you have enough or too much space? Are they in good shape?

"Recommend Heating and Ventilating Equipment? *YOU BET I CAN!"*



American Blower Equipment for heating and ventilating has been extensively used in schools of many types and sizes all over America. For every type of air handling equipment, you can depend on American Blower.

Certainly, no one is in a better position to know the true value of proper heating and ventilating than those who come in contact with it every day in the schools — the teachers and students. On sultry, hot days, when there's not a breath of air stirring, with the arrival of the first frost in the fall, and when sub-zero temperatures swoop down, proper heating and ventilating equipment keeps the schoolroom like a June day. This is why school board authorities, teachers and students, in schools equipped with American Blower heating and ventilating equipment, say: "Recommend heating and ventilating equipment? You bet I can!" For your present or proposed school, when you think of proper heating and ventilating, think of American Blower equipment. Consult the nearest American Blower Branch Engineering Office for complete data now. There is no charge or obligation for this service.



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Questions —AND ANSWERS

Discipline in Buses

Question: How can we maintain good discipline in school buses with pupil drivers? —E.L.B., Wash.

ANSWER: It is my observation that discipline in our pupil-driven school buses in North Carolina is as good as, if not better than, the discipline in a comparatively few buses driven by adults. Our drivers in every instance are outstanding pupils and for that reason are able to command the respect of those who ride.

It is my opinion that our school bus discipline has fine educational value in terms of good citizenship and self-control within the group. We have, of course, cases of complaint but these are few and far between. On the whole, the situation is most wholesome. Our superintendents are practically unanimous in their opinion that pupil drivers can maintain discipline.—CLYDE A. ERWIN.

Teachers' Contracts

Question: How can we develop a greater professional respect among superintendents and boards of education toward teachers' contracts? (There is an increasing tendency to encourage teachers to break contracts.)—A.H.N., N. Y.

ANSWER: The only way to develop a greater respect among superintendents and boards of education toward teachers' contracts is to raise teachers' salaries so that offers from other districts will not be so attractive. At the present time a teacher's contract is a disadvantage to the teacher because it merely prevents the teacher from obtaining a higher salary and better position. Since teachers' salaries are still notoriously low throughout the country, it would be unprofessional for educators to attempt any program that would prevent the teacher from obtaining a larger salary.—CHARLES E. GREENE.

Who Should Train Workers?

Question: Where does the obligation of the school end and that of organized industry begin in training workers?—G.H.G., N. Y.

ANSWER: The answer to this question varies greatly, depending upon the program set up to meet individual community needs. The specific training for a definite industrial job is the responsibility of industry. The division of this responsibility between school and industry is shown best in the cooperative courses in which groups of pupils are scheduled in pairs, one group going to school while the other group works in industry, alternating every two weeks or after agreed periods of time.

The school has a responsibility to work with industry, allowing laboratory credit toward graduation for the work shop training.

There is no definite place where school stops and industry begins. The two work together so that there is no break in going from school into industry.—FRANK A. JENSEN.

Five Year Budgets

Question: Do many schools in communities of from 8000 to 11,000 have a well-defined maintenance and repair budget that is planned for a five year period or longer?—W.B.E., Ohio.

ANSWER: It is doubtful if many boards in communities of from 8000 to 11,000 have a well-defined budget system, especially a five year plan, but the laws of some states, such as Illinois, are rapidly driving all boards to a budget system and some will undoubtedly make it for a longer period than one year.—F. W. NICHOLS.

How Can We Get Teachers?

Question: Is advertising, via radio, newspaper or educational journals, an ethical way to contact teachers? We do not seem to get any applications as a result of notification of placement bureaus, either college or commercial.—C.E.H., Mont.

ANSWER: As I see this problem, ethics of the profession is not involved. It is doubtful whether you will locate many desirable teachers through the mediums you mention. If you have exhausted the standard sources of supply, it might be well to contact the state department of public instruction for assistance. This department not only has facilities to meet such an emergency but also has an obligation to be of assistance. Expand your field of inquiry to placement bureaus of colleges in other states.—CHESTER F. MILLER.

Will Requirements Be Eased?

Question: Do you anticipate changes in college entrance requirements so that schools can fit their programs of study to the needs of the community?—J.E.B., Tex.

ANSWER: We all have ample opportunity to meet community needs for the large group of pupils who will not enter college. Many colleges have already adjusted entrance requirements so that the pupils, who have demonstrated their ability and energy to do college work, are not excluded. State universities are particularly liberal in this matter.—H. MORTON JEFFORDS.

Two Year Rotation Courses

Question: What subjects should be offered on a two year rotation in a small high school of 50 pupils, located in a farming area? We have been debating whether Latin I is sufficient or should we offer Latin II to the exclusion of world history or some such course? Most Latin I pupils think they want the Latin II—W.C.B., Wyo.

ANSWER: It is difficult to provide any type of economical instructional program for a secondary school of only 50 pupils. Your basic problem lies in the size of your school and it is suggested that study be made in groups with the state department of public instruction concerning the possibilities of enlarging this unit through consolidation or integration with other school districts. If this cannot be accomplished owing to terrain or population difficulties, it is suggested that you seek advice from your state department of public instruction as to the best program to be used.—A. B. M.

Reports on Pupils' Ability

Question: Because teachers' marks, especially when a large number of them are lumped together to obtain a composite or term mark, are more or less unreliable, is it not the general tendency to get away from too accurate marking and use a simpler system, such as "S" or "U" for reports that are sent home?—C.E.H., Mont.

ANSWER: I should say that the answer is "No." It is not less accuracy in marking or a simpler system of marking that school people are seeking. The trend is in the direction of more definiteness, greater clarity and more comprehensiveness of reporting. It is still recognized that marks are unreliable and yet Symonds finds them, in general, to be the best single predictor of success.

The severer criticism, perhaps, that has been leveled at school marks is that they tell so little about a pupil. If the pupil is rated "C," what does it mean? It may mean that the work he has done is the best he can do; it may represent an effort but one far below his best; it may represent practically no effort but far below his best; it may represent practically no effort at all. Again, in what respects was the pupil's work such that he was rated a "C"? There is nothing that tells us. He may have been mediocre in all respects; he may have been strong in some and poor in others.

The trend today—not the current practice—seems to be in the direction of reporting more data rather than less. A recent survey of school systems, large and small, showed many attempts to

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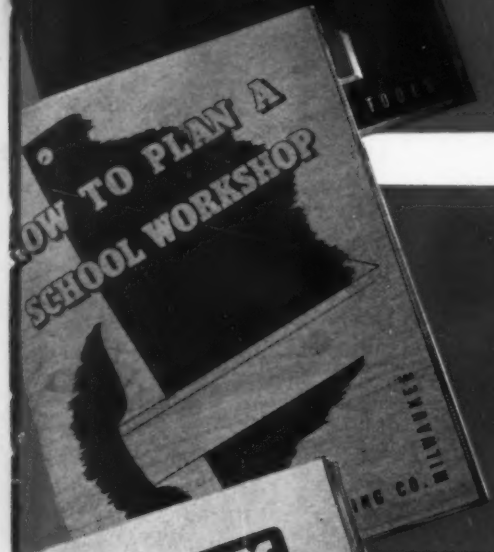

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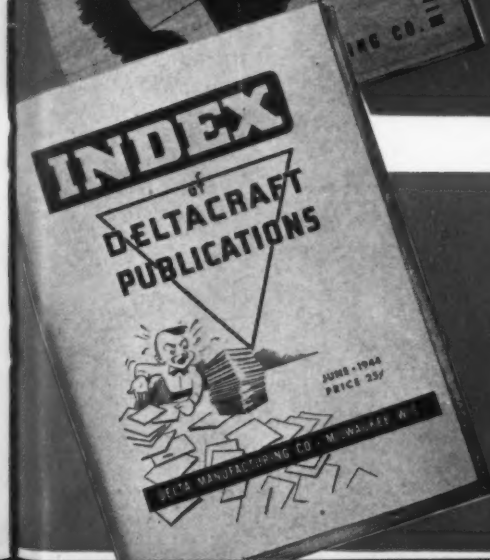

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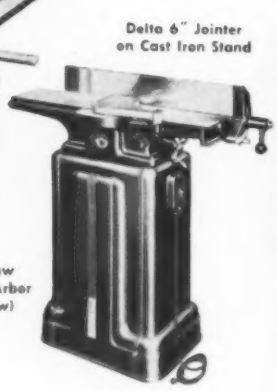
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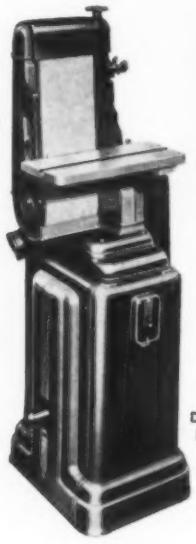

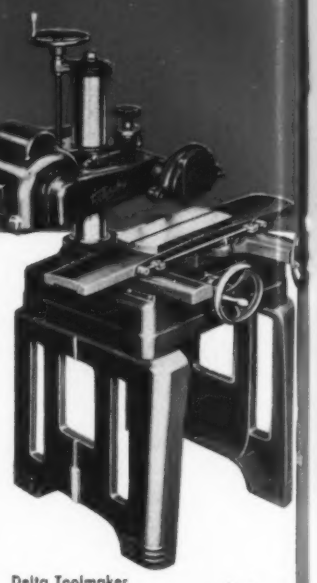
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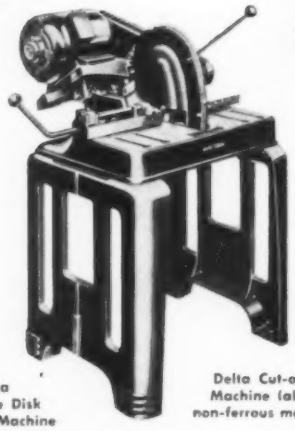
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utilize "written reports or letters" sent by the teachers to parents instead of the former report cards with grades. The latter are still more frequently used but many school systems are changing from this older procedure to some form of more extensive reporting. Instead of sending letters, some schools now give school marks, in terms of letter grades, upon more aspects of pupil achievement and pupil ability than heretofore.

I conclude, therefore, that the general tendency is not to get away from too accurate marking and use a simpler system such as "S" or "U." This conclusion would be particularly true for those reports that are sent home. The home needs more information, a better understanding of the child's achievement and of his ability. This the newer reports are attempting to give.—ARCH O. HECK.

Practical Finish for Table Tops

Question: Our home economics tables have a top area of 10 square feet of unfinished wood. This wood stains and shows marks where hot vessels from the stoves are placed. Is there a practical method of covering these table tops with some material or is there an attractive durable finish?—C.K., Ill.

ANSWER: Cement a battleship linoleum top to the table and finish it with a stainless steel or bakelite strip around the edge. Or you can remove the varnish and treat the wood with three or four coats of a good floor seal having a bakelite base. Or, remove the varnish and treat the surface with a hot linseed oil, sandpapering between coats until a good surface is obtained. This may frequently be touched up with a light polishing of linseed oil. There are several durable heat resisting varnishes on the market. Ultimately, as this finish wears off, it will have to be removed and the treatment repeated.—MARY DEGARMO BRYAN.

Time for Activities

Question: How do schools that transport all their pupils get in their extracurricular activities during school hours?—C.K., Ill.

ANSWER: Here is what one school does. At the Central Rural School at Cazenovia, N. Y., the morning session starts at 8:40 and pupils of all grades, from 1 to 12, arrive prior to that time. About 600 pupils out of the 870 are transported. The grade sessions run from 8:40 to 11:20 and from 12:30 to 3:30. The junior and senior high school sessions run from 8:40 to 12:10 and from 1:10 to 2:00 with the activity period coming from 2:00 to 3:30.

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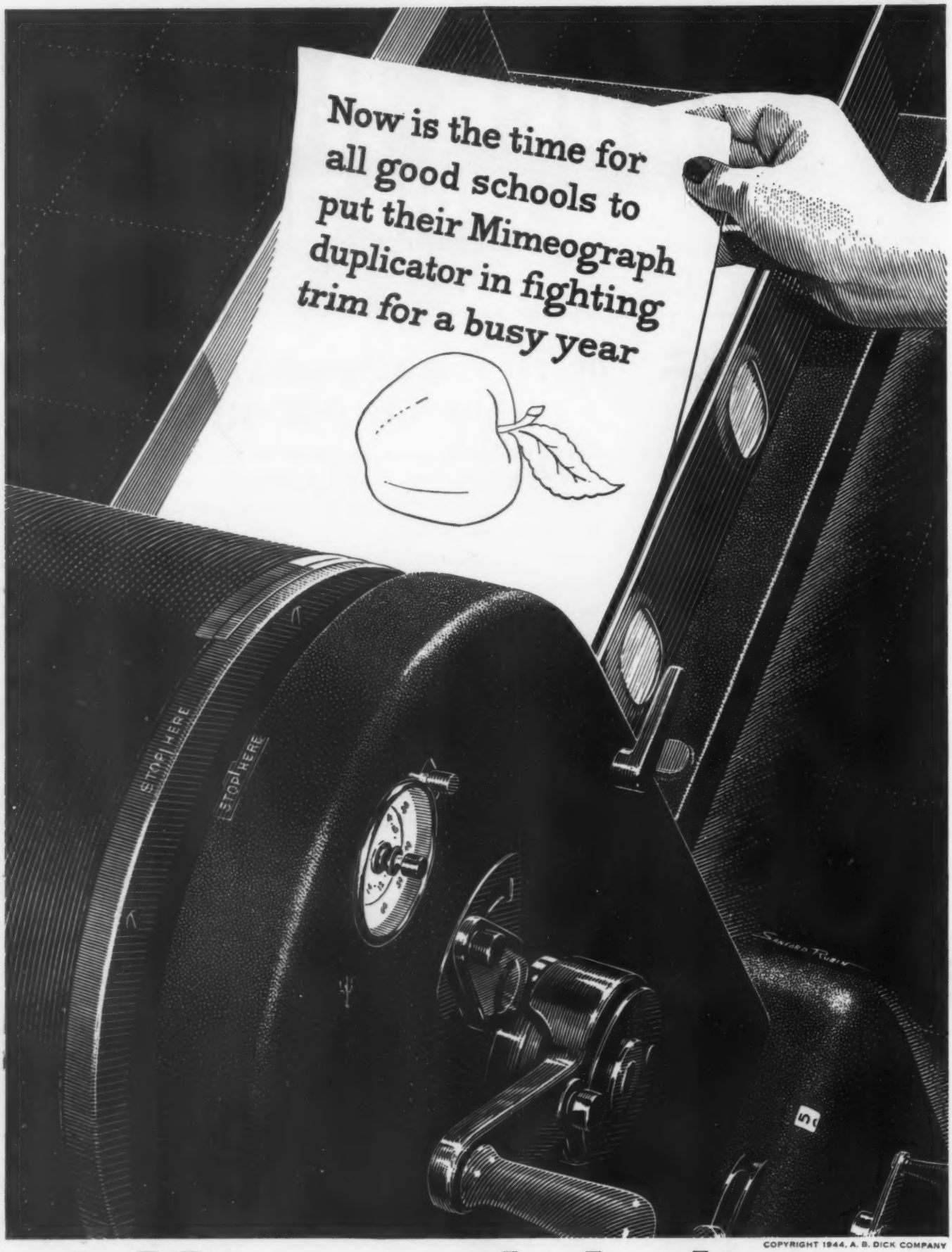
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LOOKING FORWARD

Education Week

THE observance of American Education Week from November 5 through 11 under the general theme of "Education for New Tasks" offers opportunity for public schools within every community to emphasize again the fundamental importance of nonpartisan, classless, nonsectarian, impartial public schools in the maintenance and improvement of our democratic culture. While the process of institutional interpretation should operate as an integral part of the daily life of every school, Education Week offers a chance for a special dramatic focus upon fundamental needs.

The war effort is sufficiently far advanced so that the people may start thinking of the postwar importance of public education as an integral part of the American way of life and the importance of keeping the control of this social process close to the people within the community. American Education Week also offers schools excellent opportunity to bring into the limelight some of the forces and groups that threaten serious disruption of American ideals. More attention needs to be given to the development of community and school programs emphasizing the ideals of equality of opportunity, fair play, neighborliness, friendliness and a decent respect for the opinions of others.

National War Fund

THE National War Fund appeal scheduled for October and November is a most worthy project that may be supported wholeheartedly and without reservations by the schools of this country. It attempts to combine in one large drive all programs for the raising of funds for local, state, national and international welfare. It includes 19 war-related agencies serving American and allied service men of which the best known are: United Service Organizations, United Seaman's Service, Allied War Prisoners Aid, United China Relief, Russian War Relief, British War Relief and others.

The National War Fund appeal will be carried on again this year in cooperation with regularly established Community Chests, county and state War Chests. The funds raised by this appeal will provide essential services in 91 countries on six continents.

The purpose and organization are both worth while. This united appeal eliminates much duplication of effort by independent organizations and saves the individual valuable time in providing freedom from frequent individual appeals. Schools can furnish much of the community leadership and drive to make this appeal a success.

Education and War

PORTER SARGENT, Yankee individualist, publisher, authority on nonpublic schools, writer and sometime poet, has recently published the most thought provoking book of his career built around the abstractions of "War and Education." It comes from his own press at 11 Beacon Street, Boston, and is recommended as a profitable, stimulating mental agitator for teachers and administrators.

As is customary, the hard bitten author selects a topic, collects most of the worth-while opinions on it and interlaces the broth with his own pungent philosophy and salty opinions. This book is not recommended for gentle souls who desire assurance and confirmation but rather for those who desire to be disturbed by tackling delicate problems vigorously. It contains a wealth of provocative ideas for teachers who are alive to the current weaknesses and failures of education and want to do something about them.

For those who like red meat, it will be good reading. For those who are convinced that two and two always make four, that the chamber of commerce is always right and that things are as they are because they are as they are, we suggest passing it up.

Foreign Languages

PRIOR to the World War I, French, German and Latin formed the bulk of foreign language teaching in American secondary schools. Spanish was added after 1920 but gained little in general popularity until after 1940. As a result of the World War II, foreign language education may be revolutionized with respect to extent and length of teaching. Possible modifications in method will probably not be so great as popularly assumed since foreign language instruction must share the school day with at least five other curricular divisions. It now seems doubtful whether French, German and Latin can maintain their prewar position of popu-

larity. Greater and broader attention will probably be centered on Chinese, Portuguese, Russian and Spanish. German should not be neglected but need not be given prewar emphasis.

The experience of other nations in the teaching of foreign languages indicates that the time of starting and the span of study are of more importance than Americans have given to them. Foreign language study should begin not later than the seventh grade and continue throughout the entire period of secondary education or through the fourteenth year.

There will be more emphasis on the direct method of teaching and textual content may be considerably modified in the interests of greater practicality. There is no reason why content cannot be combined with a study of the total culture instead of spending so much time on following the career of the hypothetical sister of my mother's aunt.

Foreign language study should be confined to those persons who show both aptitude and interest. There is no valid reason for making it either all-inclusive or mandatory, even for those who might benefit from it.

Future of Printing

WITH the end of the second world war in sight, it is possible and highly desirable to consider the future of printing in the secondary school curriculum. Under current conditions within the printing trades, it is doubtful whether printing can be strongly advocated for its purely vocational values except in possibly a few of the large cities. Even here the demand is relatively so limited that provisions for vocational printing are usually supplied only in the specialized technical school.

The development of the school print shop in both lower and upper secondary schools can be justified on other than vocational grounds. Printing may be considered as a craft, a fine art and a sensible and effective terminal activity for student publication activity. There is just as much reason for making the print shop a part of the total fine arts program as a valid means for creative expression as there is to include any of the activities in the "arts and crafts" category. Since its beginning printing has always been considered as one of the fine arts as well as a valuable mechanical agency for the dissemination of knowledge. The mere fact that current production of printed matter has reached mass proportions is no reason for considering that the craft value of printing has diminished to any degree.

One of the best means of teaching language is through its actual everyday use in activities that lie within the scope of normal youth interest, such as school publications. The existence and use of an efficient print shop furnish worth-while experiences based on normal interest to a much larger group of students than is possible if school papers are simply commercial print jobs. The print shop also offers real opportunity for the exercise of creative talent in exploring the possibilities of presentation. Many a lower secondary school student has remained in school because printing was one means by which his mind grasped the value of technical language instruction and so aroused continuing interest.

"The Trash Detail"

UNITED STATES army authorities at Fort Custer, Mich., recently released a feature news dispatch through the Associated Press. It stated with the accompaniment of an almost audible brass hat chuckle that the ways of the army "are different," a place "where stripes—not education—count."

A sergeant drew a "trash detail" from the 162d military police processing company which included Sam Blum, Ph.D., former professor of finance at Western Reserve University; Frank Jones, Ph.D., former professor of Latin and Greek at the University of Wisconsin and Yale University, and Bernard Dulcey, Ph.D., former Spanish instructor at DePauw University. Each of these individuals had a minimum of 18 years of education of which the last seven or eight specialized years represented a large social investment of personal, public and private funds. Almost one fourth of their effective life has been spent in becoming specialists in their respective fields.

The cry of the armed forces for trained men of all types is constantly heard from daily press and radio, weekly and monthly publications. The high skills of all three individuals are needed badly in both civil and military life. The theory of selective service means making the best use of all types of skills for the general social welfare.

There is little comfort in finding that the best use the military can make of highly trained scientists and scholars is to place them on the "trash detail" as training preliminary to becoming policemen. They were probably very funny and awkward with the broom. What a chance the high pressure army public relations officers missed for some "funny pictures" of three doctors of philosophy swinging brooms! They could have been labeled as "P., H. and D. help the war effort." This procedure is in complete harmony with the general order of several months ago that all scientists under 26 years of age be immediately inducted into boot camps.

The army still appears to be pursuing its peace-time reputation of being the most wasteful employer of man power. The news statement that "This is the army, Mr. Professor, where stripes—not education—count" is a truly magnificent self-appraisal of the military mind. The army's ways are peculiar and at times more than a bit incomprehensible to the thoughtful citizen.

The Editor

Stelchen

EDWARD LEE THORNDIKE

Master Teacher

FOR many years a plain-looking, poker-faced individual of medium height made daily trips between Lowell Hall and his office at Teachers College, Columbia University. An old-fashioned satchel that grew more dilapidated with years seemed as much a part of him as the pencils carried in an outside pocket and the comfortable but battered hat of unknown vintage. For those whom he recognized there was a reserved, almost shy greeting, for Edward Lee Thorndike, whose psychological discoveries, inventions and writings rank him among the master teachers of his generation, was not an extroverted back-slapper.

He was of Yankee forebears, born at Williamsburg, Mass., on August 31, 1874, attended Connecticut Wesleyan, because his father was a Methodist minister, and then took a second bachelor's degree and his master's work at Harvard University. In 1898 he received his doctorate from Columbia University. Doctor Thorndike became instructor in genetic psychology in 1899 and professor of educational psychology at Teachers College from 1901 until retirement in 1941.

His primary interest was research in the learning process, first of children and later of adults. He was one of the great pioneers in the scientific movement in education. Among his early books, 1903-1906, were "Educational Psychology," "Mental and Social Measurements" and "The Principles of Teaching."

He made educational history in 1907 by publishing a bulletin titled "Elimination of Pupils From School." Although the child records of that period were sketchy and fragmentary, Doctor Thorndike used a special statistical device to prove the great gap between theory and practice of the continuity of public education.

His second series of contributions extends from 1911 to 1926, including "Animal Intelligence," followed by "The Original Nature of Man," his monumental two-volume "Psychology of Learning" and "The Measurement of Intelligence." It is doubtful whether any text has had greater influence on public school teachers than his "Psychology of Learning," which remains the foundation work for study of the learning process.

A third series of books began with "Adult Learning" in 1928 and included "The Fundamentals of Learning," the driest but perhaps his most important book, "Adult Learning," "Adult Interests" and "The Psychology of Wants, Interests and Attitudes."

Sandwiched between these productions, Doctor Thorndike published authoritative and widely used tests and scales, authored a progressive arithmetic text and a revolutionary type of dictionary for children.

From the adult in his learning efforts, Doctor Thorndike turned to the adult in his community living and in 1939 published "Your City," a thin volume with so much dynamite that many old school sociologists and authoritarian religionists are still uncomfortable. He showed that the institutional church has little, if any, measurable influence on the good life in any community. His longest book is "Human Nature and the Social Order," published in 1940; his last book is "Man and His Works."

Doctor Thorndike never sought organizational honors but he has been president of the New York Academy of Science, the American Psychological Association, the American Association for Adult Education, the Psychological Corporation and the American Association for the Advancement of Science. During World War I he was chairman of the Committee on Classification of Personnel in the Army, which was largely responsible for the present personnel work in the army.

He avoided professional committees, inspirational speaking and platform hopping. His Yankee inheritance provided him with an unusual reserve and surface unemotionalism. For those graduate students and colleagues who became more closely acquainted with him, this surface coldness disappeared in a depth of warmth and lasting friendliness. Honors came with years. Athens, Chicago, Edinburgh, Harvard, Iowa and Wesleyan universities conferred the doctorate.

In 1906 he founded a colony with colleagues at Montrose, forty miles from New York City, where he swam, played tennis and golf, cracked rocks, chopped trees and dug out stumps until the doctors forbade all that.

Retirement has not changed his habits much. He now wears no hat at all and the satchel is a little shabbier but he still works daily at his desk, recognized and honored as one who has made great individual contribution to the advancement of public education.
—ARTHUR B. MOEHLMAN.

Why Men "Crack Up"

ABRAHAM MYERSON, M.D.
Clinical Professor of Psychiatry
Harvard Medical School

Acme

Coastguardsmen assist a battle-blackened marine into a boat after two days' fighting on Eniwetok. War has brought psychiatric disturbances into sharp focus; they are not new, however.

THE human mind is man's chief organ for adapting himself to his contradictory universe of stimulations and inhibitions, seductions and repulsions, competitions and collaborations.

Brilliantly, but somewhat unfortunately, the collective mind, through the magical and dangerous instruments of the Word and the Tool, has built up a social structure with long-term institutions which progressively complicate the world to which the individual mind must adjust, so that by a duality of result the products of the human mind have become at once social triumphs and individual dangers. There has come into existence in the biological universe a totally new thing, a social heredity which operates almost as powerfully as germ plasm transmission of qualities.

From another point of view, the human mind is an assemblage of functions securely and inevitably organic, that is, dependent upon structural integrity and organ correlation. Thus, there are abnormal mental states due to diseases of the brain or to diseases of any organ of the body, especially the internal glands. Such, for example, is syphilis of the nervous system. Toxic substances may be indulged in to the point of abnormal habit formation and of structural damage to the organism as in alcoholism. The individual may not have sufficient mentality by reason of an innate failure of his organism to develop, and feeble-mindedness is the result.

In the course of a man's lifetime, and because of factors we do not understand, knowing only that they are fundamentally constitutional and probably inherited, he may develop those mental aberrations of which the two most conspicuous are schizophrenia and manic-depressive psychosis. The organism may explode from time to time into unconsciousness and convulsion as in epilepsy.

Emotions Affect Organic Function

Because mind and body are one, abnormal or devastating emotional states may derange the great functions of the organism, such as sleep, appetite and desire in general; may interfere with the action of the heart, the respiration, the circulation; may bring about vomiting and diarrhea; may, in fact, disorganize any organic function without demonstrable permanent damage to the organism itself; and here, in a few words, are the neuroses.

Finally, there are individuals who

Are Americans a neurotic people? Draft board rejections and Army psychiatric casualties do not necessarily prove this to be so.

cannot or do not conform to the social demands, those who deviate sexually (homosexuals, masochists, sadists); those who are incapable of governing themselves insofar as the rights of others are concerned (certain criminals), and those who, in general, deviate in conduct because of assumed constitutional disorders of character. These are lumped together in a rather vague mass called disorders of constitutional psychopathic inferiority.

I have thus sketched the field of psychiatry which, as the reader will see, sprawls all over the human map, embracing the well-known and scientifically determined, such as the organic diseases of the nervous system, and including increasingly vague groups of disorders in which there is almost no science at all.

Mental Disorders Better Known Now

What wonder, then, that the induction boards of the nation reject 14.5 per cent of the inductees. At no other time in history and in no other country has the man who enlists or is drafted into military service been subjected to so rigid a scrutiny. Moreover, it must be remembered that as psychiatric attention is increased, more psychiatric cases are found and that sometimes the psychiatric label represents merely a shift from a previous label, not psychiatric.

For example, in the old days, dyspepsia was an entity. Today by far the greater number of people who complain of gastrointestinal disorders of whatever kind, from belching to the spastic colon, are called psychoneurotics.

Similarly, with the attention now paid to the quantitative aspects of mentality, more feeble-minded are found. Obviously, in a simple society where men fight hand to hand, learning isn't necessary but in an industrialized society, they have school records and their mental attainments become important in mechanized warfare. Therefore, larger numbers are rejected because of feeble-mindedness.

It is necessary to emphasize that the penetration of medicine by psychiatry has enormously increased in the generation which has elapsed since World War I. Men who are today classified as psychiatrically maladjusted would have been labeled otherwise or would have escaped attention entirely in 1917-18. This should comfort those who think the race is going to the dogs because of the high percentage of 4F's having psychiatric disorders. He who finds it necessary to take sodium bicarbonate to still a disturbed stomach resulting from fatigue and strain would be rejected if he made these facts known to the induction psychiatrist. Yet presumably he is able to carry on successfully in civilian life.

The assumption is made that for men to live in large groups, subject themselves to harsh discipline, give up individual striving and comfort and be able to sleep, eat and feel well despite monotony, strain, the bitterness of frustrated egoism and the anguish, fear and suffering of battle itself, they must be solid and stable and have no difficulties in civilian life. This is almost a prescription for perfection.

It is entirely possible that the rejection of any individual may be in error. Thus, a man who has a crime record and is a felon by legal definition may make a valiant fighting

Acme

Modern conditions of living and laws of society are also to blame for neuropsychiatric disorders. We are overstimulated. We live through the Normandy invasion step by step and many of us can't stand the strain.

man. It may be that an individual who has gastrointestinal difficulty under emotional strain and fatigue may still be able to stand up against hardship and do or die with the best of men. It may even be that some temperamentally unstable individuals become heroes and win medals but, by and large, the rejection rate is not too high, does not spell the damnation of the race, nor do statistics demonstrate that we are going to the bow-wows. *In an autocratic society, large numbers of these men would not be rejected,* because there is a harsher attitude toward individual suffering in that type of society. A place would be found where these men might be useful, regardless of their pains, aches and disabilities, but this is not the case in a democratic society. While the rejection rate is probably greater for the American military forces than for those of Germany, Russia or Japan, it by no means indicates that we are a more neurotic race, even though we may be, and it may be necessary for the strain of individuality to express itself in some instances in neurosis.

Consider These Facts

The casualties in the Army and Navy are probably about one third neuropsychiatric but to estimate this properly we must take into account the following facts: There is a normal breakdown rate into the various nervous and mental diseases in the ages between 18 and 37 in civilian life. Many men would become disabled by mental disease and neurosis irrespective of military service. Many of them, with a previous history of nervous and mental difficulty, should never have been inducted at all. Furthermore, a large number of those discharged have undergone hardship, suffering and anxiety from which they will recover promptly on their return to civilian life, in fact so promptly that one may suspect that in a considerable number of cases a definite motivation has operated, an escape mechanism, whether conscious or unconscious. Despite all the talked-about rehabilitation, once a man really breaks down in the armed forces, he had better be discharged into the community.

When all these facts are taken into account, there remain the huge problems of neuropsychiatry which war has brought into prominence but which neuropsychiatrists have known about and have had to deal with daily in the piping times of peace. War merely intensifies the vulnerability of the human mind and also calls it to the attention of those who otherwise would overlook it. When neuropsychiatric disorder involves military capacity, it becomes a public fact, whereas it has always been, perhaps, a major problem of human disease and deficiency.

The psychiatrist should be the least dogmatic of men just because his material is the least well defined, understood and accessible to successful treatment. Psychiatrists have oversold themselves. They have posed as the repositories of wisdom. They have been Mr. Know-It-All and Mr. Fix-It-All. They should be the most modest and least arrogant of specialists. Therefore, what I have to say of the background of causation of these disorders must be taken not with a grain but with many shakers of salt.

In the first place, the war emphasizes a most important fact which makes it necessary for all men to labor for a lasting peace. War takes the better and spares the lesser and the deficient, especially those lacking nervous and mental stability. This cannot continue without destructive effect on the inherited human constitution which, in the last analysis, is the basis of a man's ability to "take" life.

Overstimulation Affects Nerves

Second, civilization enormously increases the stimulations to which the human being is exposed and to which he must react and adjust. The electric light makes it possible for him to work and play intensively at night and it creates a whole night life of tension and excitement. But to turn night into day is not biologically wise since it impairs sleep, rest and relaxation, all three being essential to health. This paradigm of the electric light can be extended in a thousand and one directions. When we bombard ourselves with the news of what is going on everywhere, as when we undergo the anguish of the Normandy invasion step by step, we subject ourselves to strain for which some of us are not adapted.

In the third place, it seems to be necessary for society to frustrate the immediate satisfaction of biological urges in a way entirely unheard of in the rest of the living creatures of the earth. The vestibule of desire, as Hocking says, can be prolonged into infinity but to do so often means that desire disappears and melancholy and depression take its place. The span from the simple desire to the immediate satisfaction is without much tension or strain but the sacrifice of the present moment for the future good (which may never arrive), which is so characteristic of education, training and a life built around central purposes, is probably difficult for many human beings who might otherwise live successfully. Some indeed are born allergic to frustration and even the prolonged delay of satisfaction.

Competition Produces Strain

The intensive competition, the constant appraisal and reappraisal of individuals both by themselves and by others, which is an ever-boiling process in civilized human life, brings fear, dread and a feeling of inferiority to many. The competitive life may, indeed, bring out the finest of qualities but, since every farmer boy cannot be president and many may yearn to reach the presidency, the frustration rate goes up as the extolment and reward of achievement rise. We can hardly conceive of a lion living his life according to his ideas and ideals of the life of a "Leo the Great" or a "Leo the Holy," which lived and died generations before but a man may break his heart because he has failed to live up to an ideal. And so on.

A training in psychiatry is not *per se* a training in wisdom. Knowledge is relatively easy to obtain. Wisdom is an inborn gift and has, on the whole, little to do with formal, professional and specialized education and training. We who are psychiatrists cannot legislate for society, for educators, legislators and rulers, for the home, the school and the church; we can only pool our knowledge in the common reservoir.

Psychiatry needs to enlist the best minds of the race in its service. It needs funds which in peace time would sound enormous but in war time represent a few hours of fighting. It needs men who will dedicate their lives to its problems but it also needs a society which will be candid and impartial in the most difficult of tasks, namely, viewing and revising itself, its ways and its works.

THE COMMUNITY HAS A STAKE
in postwar planning

New York State has a plan whereby the people share in this responsibility with schoolmen

J. CAYCE MORRISON
Assistant Commissioner for Research
New York State Department of Education

THIS is 1944. For thousands of young men the war is over. For other thousands it will be finished by the end of this calendar year. On the other hand, as some wit phrased it recently, this war will last longer than the duration. Whatever date finally marks its end, boards of education are confronted with many problems and opportunities.

What kind of educational program will your community need by 1950? What kind of program do you propose to have by 1950? What steps must you take in order to reach the goal you want by 1950? These are questions that local school authorities in the State of New York are undertaking to answer in cooperation with the state education department.

The Plan Is Originated

More than a year ago the committee on research of the State Council of School Superintendents suggested that the committee, in cooperation with the research staff of the education department, should formulate a plan for the guidance of local school authorities in planning postwar educational programs. A prospectus of the proposal was drawn and presented to the council of school superintendents and was approved.

The prospectus was then presented to the executive committee of the New York State School Boards Association and the executive committee approved the proposal and authorized the printing of the prospectus in the September issue of its *Journal,* which went to members of the association prior to its annual meeting in October. The proposal was also endorsed by the executive committee of the New York State Association of District Superintendents. The thought back of the proposal was summarized in the preamble of the prospectus, as follows:

The war is changing American life. Some effects of the war on education are now obvious; others will appear as the nation shifts from a war to a peace economy. The birth rate has increased rapidly; soon elementary school enrollments will increase. Demobilization of the armed services and of war industry will send many youths back to school. There will be increased demand for extending elementary education downward and secondary education upward. Work experience will become part of education.

Youths will return from the war with knowledge of the world. In the years ahead, American youths will be drawn to all countries and continents. To prepare them for their greater obligations, drastic changes in the schools' curriculum will be needed. The schools will be called upon to render new and increased services. There will be need for new buildings, increased personnel, different organization of schools, added financial support of education.

"The essence of good administration is foresight." The future belongs to those who vision it and prepare for it. This is planning. The war will end. Will our schools be ready to help youths prepare for the new world that may be theirs?

Responsibility of planning for postwar education rests with every superintendent of schools and board of education. Out of the aspirations, the tested thinking of local authorities may be evolved the state's policy. In a democracy, statewide educational policy has virtue in proportion to the extent that it is grounded in the desire, the understanding, the will of those who translate the policy into action.

Educational decisions made now will shape the course of American life for decades to come. Even inaction is a form of action. Will education lead or follow? American democracy has become the hope of the world. American industry has given new meaning to that hope. American education must prepare youth for the larger rôle the United States is called to play in the world's affairs. The time for planning is *now.*

With the support of the three associations, two committees were appointed. The working committee consisted of three members. Dr. Clyde B. Moore, professor of education, Cornell University, member of the Ithaca board of education and formerly president of the New York State School Boards Association, was named chairman; Dr. Robert E. Bell, district superintendent of schools, first district, Westchester County, represented the State Association of District Superintendents, and Howard T. Herber, superintendent of schools at Malverne, represented the state council of school superintendents. Dr. Ralph B. Spence was research consultant and secretary.

Educators and Laymen on Committee

The advising committee consisted of officers and representatives of the three associations and of the State Teachers Association. In addition, various persons were called in for consultation, either with the working committee or for joint sessions of the two committees. Consultants were drawn from the Office of Civilian Mobilization of the New York State War Council, the New York State

Postwar Public Works Planning Commission, the Board of Superintendents of New York City Schools, the Educational Policies Commission, the New York State Department of Commerce and the Regents Committee on Postwar Planning. At various stages representatives of the several bureaus and divisions of the education department were brought into conference.

Procedures Are Outlined

The committee prepared an outline of procedures to be used by local school authorities in studying the educational needs of their communities. The plan of procedure developed consists of four major steps:

1. What will the community (city, village or school district) be like by 1950?
2. For this kind of community, what kind of education is needed and for whom?
3. In terms of the kind of education we want, what are the outstanding deficiencies in the present program?
4. How can the community move from where it is to where it wants to be?

The procedure, including forms for recording and reporting data, is presented in a 27 page booklet entitled, "A Manual for Community Participation in Educational Planning." Boards of education have been requested to review the manual and to initiate the studies proposed. It is suggested that a directing committee be appointed to consist of the superintendent or supervising principal, as the case may be, the chairmen of the three subcommittees and such other persons as may be desired.

The three subcommittees correspond to the first three steps, that is, one subcommittee prepares an estimate of community changes likely to take place by 1950; a second outlines the educational program which it thinks desirable for the community by 1950, and a third compares the present program with the desired program, defining the shortages that must be overcome. The reports of the three subcommittees are reviewed by the directing committee and then presented to the board of education for review and action.

In building up these estimates, it is not assumed that local committees will undertake the exacting research that would be required in a sociological survey but rather that they will bring together such a body of information as will enable boards of education to begin planning for those issues that must be met in the next five or six years. Out of this preliminary study, it is assumed that problems of a statewide nature will emerge to the solution of which more exacting research may be directed later.

The study of the community in Step I includes five sets of factors that will affect educational decisions. These factors are: population, economic conditions, demobilization, home conditions and other community factors, such as facilities for play, libraries and museums, facilities for social intercourse, movies and theaters, opportunities for music, dramatics and other fine arts, social service provisions and opportunity for youth's participation in civic responsibilities.

The committee for Step II will review the recent recommendations pertaining to education made by state and national committees and agencies to obtain a fair understanding "of the general trends" of education and their relation to the expected developments in the community. To simplify the work of the subcommittee, the manual lists a series of statements of educational policy and provides a schedule for use by the local group in recording its judgment of each proposal.

For Step III a series of work sheets has been provided. A separate work sheet is to be prepared for each area of work in which a shortage is discovered in the current educational program of the community as compared with the educational program desired by 1950.

Report Will Show Community Opinion

Each of the three subcommittees is expected to draw into conference individuals from the school staff, parents, high school pupils, officials of local government and representatives of community groups and agencies. When the committee's report comes to the attention of the board of education for official review, the board should feel that it has for consideration the best estimates, the best thinking obtainable from responsible community opinion.

At this final stage the board of education reviews the report of its committee and determines what action it will take, if any, upon the various proposals. The state committee suggests that the outcome should be not so much a report as a plan of action.

"The final test is not in the excellence of the plan, important as this is. Reports should be preparation for action. The improvement of the community's educational program will be the real test. The development of a broad picture of what education in the community might be should be the vitalizing force which will help to bring more and better education to all who need it, regardless of age, sex, color and creed. Such an educational program should be a permanent monument to the board of education responsible for it."

Regardless of what action the board may take with reference to the recommendations of its committee, the total procedure contemplates that the board will transmit its report to the state committee. The latter will then analyze the local reports, interpret the data and prepare a state report to be transmitted back to local school authorities and to serve as a basis for discussion in the annual meetings of the various participating educational associations.

Cooperation Will Be Sought

It is anticipated that the research consultant assigned to this project will be engaged in more or less continuous correspondence with local authorities with a view to developing a closer articulation between local endeavor and the assistance that can be given by the various administrative offices of the education department.

Beyond the immediate problems of postwar planning, this project has a broader implication, stated in part by the committee as follows: "Carrying through the program outlined in this manual will require time and effort but time spent now will save time later. Not only is this a plan of preparing for the difficult problems and the greater opportunities that will confront schools in the aftermath of war, but it is an effort to develop a cooperative procedure that will keep state educational planning in New York close to the desires, the understanding and the will of the people. To this end the committee invites the cooperation of all persons, officials and laymen alike, state and local, who through education would help youths grow in capacity to serve well their day and generation."

Big Stick Rule Is Out!

Today's method is cooperation among pupils, teachers and principal . . . As demonstrated in this Iowa school, it breeds harmony... develops initiative, exemplifies the democratic process . . .

MALCOLM SCOTT HALLMAN
Principal, The Franklin School
Cedar Rapids, Iowa

SCHOOL government may take one of three distinct forms. One is the autocratic one-man rule; another, the short circuit principal-pupil council, and the third, the cooperative pupil-teacher-principal plan.

According to school history, it was not so long ago that the principal was commonly accepted as a dictator. Even today one need not search far to find a principal here or there who holds the purse strings and doles out activity funds according to his own judgment of needs or the persuasiveness of various coaches, directors, managers or sponsors of different activities.

Later, around the turn of the century, the so-called "student council" flowered. Some schools even set up miniature "national" governments with houses of representatives, senates, executive and judicial departments. Fortunately, these travesties on self-government mostly bogged down of their own weight but the council plan, borrowed lock, stock and barrel from the college or university level of maturity, still persists in many places.

On the secondary level, where teachers have close disciplinary contacts with pupils, the usual "student council" is a closed corporation between the principal and a comparatively small group of pupils and ignores the place of teachers in the school organization. Legally, the principal and teachers are responsible for school government as well as for instruction and management.

Any scheme which ignores the functions of either principal or teachers violates their legal and moral responsibility. The responsibility of mature guidance and discipline cannot be evaded by principals and teachers. In our civil government, duties and powers are defined by basic law. Few student councils have clearly defined functions except those approved by the principal or a deputized sponsor.

The third and most modern type of school government is in its infancy. It is known as cooperative government and avoids the chief weaknesses of both the autocratic and council schemes. It recognizes the three personnel factors of school management: principal, pupils and teachers. It is predicated on the assumption of specific duties as assigned by the principal to joint committees of pupils and teachers. The principal himself is an *ex officio* member of all these governing committees.

Following is a concrete example of how the cooperative form of government is functioning in one school. There are eight committees, made up of pupils and teachers.

Art Committee (eight pupils, five teachers). This committee made a survey of the building and rearranged all the works of art so as to make all parts of the building attractive. Several years ago the school received a Carnegie Foundation grant of 900 prints and 125 books on all phases of art. To ensure the widest possible use of this material, the art committee hangs framed prints in the corridors throughout the building. The pictures are changed in the frames weekly.

Budget Committee (eleven pupils, eight teachers). Through the efforts of this committee the school weathered the great depression without giving up a single extracurricular activity. This committee plans the one big ticket sale of the year in September. At this time more than 90 per cent of the pupils buy "budget tickets" which sell for $3.50 and are good for $7.95 worth of art, athletics, debates, dramatics, lyceums and music. Around the first of October the committee divides the funds according to the estimates made for all activities the previous spring. This is possible because the members of this committee become experts in extracurricular financial affairs from their experience and by their undivided attention to one particular delegated duty.

Business Committee (ten pupils, three teachers). During the annual budget ticket sales and at the time of distribution of *The Franklin Key,* the school year book, this committee cooperates with the budget committee and the year book staff in handling the greatly increased business which comes at these times. In addition, it has entire charge of the semiannual audit of the books and records of the school treasurer. This

involves a careful examination and verification of all requisitions, canceled checks, investment securities and the making of a complete financial report.

Honor Assemblies (eleven pupils, six teachers). In contrast to the practice of encouraging synthetic enthusiasm which, in the name of school spirit, reaches its zenith during the football season, tapers off during the basketball season, bogs down in the track season, never reaches golf or tennis and completely ignores the interests of the actors, artists, debaters, musicians, writers and others engaged in activities which develop personality and contribute to the character of the school, our school encourages the honor assembly. The committee in charge arranges a fifteen minute program *after* events for those pupils who deserve encouragement and recognition.

Lyceum Committee (eight pupils, seven teachers). Our assembly program is divided into three parts: homeroom programs, house programs for the pupils in one grade, assemblies for the whole school. The first two are the training ground for appearances in the third and in dramatic productions; they are planned and carried out by homeroom and house joint committees. The school assemblies are planned by the lyceum committee and sponsored in turn by various organizations. One of the outstanding programs is the welcome to new pupils each semester.

Many of the numbers on these programs are bought from lyceum bureaus and are presented by professional artists, athletes, dancers, humorists, musicians, newspapermen, scientists, travelers, writers and persons having many different outlooks on life.

The Martha Washington Room Committee (eleven pupils, six teachers). The social room was established many years ago through the cooperation of a joint committee of pupils and teachers appointed to select a color scheme, draperies, chairs and tables, kitchenettte equipment, lamps, piano, pictures and rugs. This committee also made the rules. The room was directly in charge of the dean of girls. With the advent of the cooperative form of school government, a standing committee now handles reservations, keeps an autographed record of each social event, has a share in the budget, buys new furniture and, in general, is entirely responsible for the use of the room.

Public Relations Committee (nine pupils, five teachers). Many outside organizations, especially in war time, make demands on the school and, after approval is obtained at the superintendent's office, this committee takes over the work to be done. It handles the junior Red Cross membership campaign, cooperates with the mayor of the city in promoting a safe, sane and war-time Halloween, supervises the bulletin board by stamping its approval on legitimate notices and posters and removing out-dated ones, deals with the press on school publicity, manages the collection of wastepaper, the annual Easter collection of eggs for the Children's Home and, in general, makes itself useful in coordinating community interests with those of the school and in disseminating school information.

Sportsmanship Committee (twelve pupils, six teachers). This committee is in general charge of our school section at games and of all activities during intermissions. It is the function of the leaders to provide diversion for the crowd so as to eliminate undesirable conduct and thus improve conditions for patrons who wish to enjoy the games. The general term "sportsmanship" describes the ideals to be attained and makes the influence of this committee of great importance, not only on the field but everywhere throughout the school.

The fundamental differences between the old autocratic method of administration and the more progressive ones are obvious but those between the student council and the cooperative plan here described are not so marked. The more striking differences between them are as follows:

The Council

1. Small group
2. Ignores teachers
3. Nebulous powers
4. Responsible to principal

Cooperative Plan

1. Many pupils
2. Works with teachers
3. Specific functions
4. Responsible for results

In conclusion it is only fair to state that the type of principal sets the pattern for the type of government best suited to his personality. The autocrat should not attempt either of the newer plans; the leader of pupils would not wish to be autocratic; the cooperative principal can do best by training his pupils and teachers to work together.

Each produces a school which reflects his own philosophy: the autocrat gets the quickest results, the councilman develops the strongest pupil allegiance, the cooperator reproduces the evils as well as the virtues of democracy. The first must necessarily be suppressive, the second dangerously expressive and the third successful to the extent that the committees cover the school's needs.

Junior College Offers an Engineering Physics Course

AN INCREASING number of high school graduates who go on to college are electing engineering courses in order to meet the demands of postwar technical work. Instructors in engineering courses in the colleges often complain that high school boys lack a knowledge of the theory of engineering physics and are, therefore, slowed up in mastering the practical work involved in the use of materials and operations.

Junior colleges are now shaping their curriculums to perfect this transition and are endeavoring to meet the specific demands of postwar needs. In particular, the Dickinson Junior College, Williamsport, Pa., is introducing a course in engineering physics designed to satisfy the requirements for college engineering courses.

It will be offered as the result of conferences with numerous college and industrial executives who state they will welcome this innovation and believe it will meet a long-felt want.

Better Nutrition
through school lunches

MARGARET M. MORRIS
Civilian Food Requirements Branch
War Food Administration

THE school lunch program in this country not only is contributing directly to the nutrition of children but, as an outlet for foods in local or temporary abundance, is helping to solve large-scale distribution problems. These facts were recognized by Congress when it authorized $50,000,000 again this year to assist schools in providing lunches.

The War Food Administration will administer the funds in substantially the same way as it did last year. Foods purchased in market price support programs and those available because of changes in lend-lease and military requirements will be distributed to schools in accordance with needs and requests. In addition, reimbursement will be provided for foods purchased locally by school lunch sponsors who have entered into an agreement with the W.F.A.

In administering the program within the states, the W.F.A. will seek agreements with departments of education or other state agencies designated by the various governors. This agreement will set forth the responsibilities of the respective signers and will describe conditions relating to participation. In states where agreements cannot be negotiated, the schools will not be deprived of federal assistance, as the W.F.A. will work directly with county or individual school systems. Private schools, not included in a statewide agreement, can also deal directly with the W.F.A.

Schools wishing to obtain assistance should apply to the office of distribution of the War Food Administration directly or through their state departments of education. The sponsor should ascertain what his probable income and expenditures will be and then request only the amount of assistance needed to meet the deficit. In order that the federal funds may be spread as far as possible, the sponsor should explore every possible local resource before applying for federal aid. The law states that for every dollar the federal government spends there must be at least one dollar "furnished for the same purpose by or on behalf of the state and local school authorities and other sponsoring agencies" within the fiscal year.

The maximum reimbursement is 9 cents for the foods purchased and served in the type A lunch, which is a complete meal. For lunches measuring up to the requirements of the type B lunch, a maximum of 6 cents is allowed. The type C lunch, a half pint of fresh, whole milk, carries a maximum reimbursement of 2 cents. In making purchases schools will be urged to select those foods which are in local abundance. Thus they will help local producers and will keep their food costs down, as plentiful foods are usually inexpensive.

There is no designated food list this year, as there was last. The only restriction is that the foods shall be agricultural commodities that may be used in meeting the requirements of the specified lunch type. Fish, salt, candy, soft drinks are excluded.

The lunch must be available to all children in the school, regardless of ability to pay. The charge to paying children may be to the extent that it covers the cost of the lunch. If any profits should accrue from the sale of lunches, they must be put back into the program to improve it or the charge must be reduced until the profit is used.

Last year 60 per cent of the lunches served to 4,000,000 children with W.F.A. assistance were type A, or complete meals. Since the type A lunch is in terms of foods instead of nutrients, it is readily understood by persons untrained in the science of nutrition. Local food preferences can be followed in meeting its requirements. It also provides for meeting vitamin and other deficiencies found in certain areas and for complementing the two meals that the child receives at home.

In setting up the requirements for the type A lunch consideration was given to the nutritional needs of growing children as well as to diet deficiencies as indicated by surveys of the last 10 years. These two factors are responsible for the inclusion of milk and protein-rich foods in the lunch. The vegetable-fruit requirement is a general one which home economists in various localities can work out in accordance with local conditions.

Much is being said today of the educational value of school lunches. School authorities are beginning to see how they can use the school lunch program as a learning situation. It enables children to learn by example—the good example of a well-planned, carefully prepared and attractively served lunch enjoyed daily. They develop a respect for food and appreciate its importance in nourishing the individual so that he may be a more useful member of society. The attitudes and beliefs of teachers and school administrators toward the school lunch program and related nutrition education will be largely responsible for the resulting values to children. If school authorities remain indifferent, then neither a good feeding program nor a nutrition program is possible of achievement.

Local authorities, who are alive to the opportunities of the school lunch program, find that they have full community support from public agencies and private groups. The federal government can provide assistance but the success or failure of school lunch programs is in the hands of school administrators working in cooperation with the people of their own communities.

In Tampa, Fla., "Bondaliers" get a pep talk on selling bonds

Plan War Bond Campaigns *Early*

DANIEL MELCHER
Director, Education Section
War Finance Division

THE enthusiastic and conscientious leadership of school children in community war bonds drives is convincing evidence of the growing sense of civic responsibility found in American boys and girls.

Whether in one room rural schools or large city educational institutions, the youngsters have proved themselves indispensable. Last year, in addition to assisting in house-to-house canvassing, messenger service and clerical aid for local committees, the school children themselves invested more than $660,000,000 in war savings.

With each successive war loan, not only have war bond and stamp sales been integrated more closely with classroom work but extracurricular activities also have been tied in more frequently with community promotional enterprises. These projects designed for stimulating community bond sales are desirable from two standpoints. Most parents, who form a large proportion of the bond-buying public, are more readily convinced of the need for buying bonds by the informed enthusiasm of their own children than by the cut and dried sales talk of adult canvassers.

The U. S. Treasury flag is awarded when 90 per cent of the pupils are purchasing war bonds and stamps.

From the standpoint of the pupils, such community projects provide excellent opportunities for creative work in music, art, dramatics and public speaking; for managerial and promotional training, and for all-round teamwork. Mock radio broadcasts, quiz programs, debates, concerts, plays and athletic exhibitions have often proved successful.

The next nationwide bond drive will doubtless find thousands of schools opening the campaign in their communities with a presentation of the musical show "Figure It Out" which explains how savings can help control rising costs. The script and music for this production can be obtained from the education section of the War Finance Division of the Treasury Department in Washington.

Schools also can serve by providing coming bond drives with trained speakers for luncheon meetings and rallies and tyro broadcasters for local

stations. School bands, orchestras, choruses, glee clubs and "pep" bands will add zest to community affairs.

Art classes can furnish assistance in many ways. One of the most successful features of the Fifth War Loan Drive in Long Beach, Calif., was the use of large posters on post office trucks and in store and bank windows. Forty-seven posters — all original and all different—were supplied on seven days' notice by Franklin Junior High School art pupils. The freshness and vigor of the bold strokes of the paintbrush on heavy wrapping paper impressed passers-by and helped hurry them to buy.

Art classes also can design and make programs, handbills, ushers' arm bands and costumes for rallies and entertainments. Here again we seen the double value of such activity, namely, more appeal to adults and more practical application for pupils. Furthermore, pupils find more zest in doing original work which will be used for a specific purpose than in abstract projects.

Narration, exposition and description, long the "boring bugaboos" of language lessons, tend to shed their irksome aspects when applied to writing letters to parents and friends and articles for school or community newspapers about the need for, and wisdom of, buying bonds. Iambic feet become less hazy when pupils set themselves to composing jingles to "plug" bond sales.

An Aid to Mathematics Study

The need for mastery of addition, subtraction, multiplication, division, fractions, percentage and interest appears more vital when pupils learn to apply them in relation to war stamp banking. Classroom study about financing war and peace will also tend to stimulate pupil interest in civics.

Since all school projects connected with the war savings program tend to influence the success of the community's bond quota, it is advisable for each school to select several specific goals. The Schools-at-War program is emphasizing two such goals: (1) to qualify for flying the Schools-at-War flag by American Education Week, November 5 to 11, and (2) to complete at least one campaign to finance one or more pieces of mobile fighting equipment by the third anniversary of Pearl Harbor, December 7. Any school in which 90 per cent of the pupils have participated in the war savings program during a month may fly the Schools-at-War flag during the following month.

Grandma buys a war bond.

Whenever a school purchases enough bonds and stamps to pay for a specified piece of equipment, the Army or Navy places a decalcomania panel with the name and address of the sponsoring school on a piece of that equipment. Complete details can be obtained from state war finance offices.

Letters from crews using these sponsored pieces of equipment have been received by schools in various parts of the country. With these letters, geography lessons have taken on added importance and bond and stamp sales have soared.

Faculty and student leaders are urged to consult with their county war finance committees so that successful school-community war bond rallies and campaigns can be planned far in advance. The advantages of school leadership and participation in such community projects can never be measured merely in terms of war bonds sold through the school or by pupils. To quote Secretary Morgenthau in a letter to teachers and school administrators: "The example set by your students through their weekly saving and self-denial is an inspiration to all the rest of us."

Two blacksmiths in the Bronx buy war bonds from Boys Club members.

A house-to-house canvass of mothers is made in the Newark, N. J., area.

PREVENTION is the Essence *of* this health program

It is based on the theory that the discovery and treatment of physical disorder in childhood will prevent more serious troubles in later life

ROBERT YOHO
Division of Health and Physical Education
Crawfordsville, Ind.

Teeth must be as sound as dental science can make them.

REGULAR medical and dental examinations of school children were firmly established in the school system at Crawfordsville, Ind., long before the state law requiring medical examination of all school personnel was passed.

The center of the health service is a large well-equipped clinic that also serves as an office for the school nurse. The school medical adviser, with the assistance of the school nurse, conducts medical examinations on the kindergarten, first, third, fifth, seventh and ninth grade levels.

The junior and senior boys and girls are given a more complete examination following suggestions outlined in the recommendations of the Indiana physical fitness program. This examination of the heart, blood pressure, feet, musculoskeletal system, ears and for signs of hernia and evidence of communicable disease serves a two-fold purpose. First, it seeks to discover handicapping defects at a time when they can be most easily corrected; second, it endeavors to determine the type of physical activity best suited for the individual and the health information of which he is in greatest need.

The school dental adviser makes dental examinations on the same grade levels that the medical examinations are made. He examines and suggests necessary dental prophylaxis to the child and parents and one day each week he does corrective work on those children whose parents have not had the correction done or who have indicated they are not financially able to do so. It is intended that no boy or girl shall be graduated unless his or her teeth are as sound as it is possible for dental science to make them.

The school nurse, in addition to assisting the doctor and dentist, performs a number of other services for the children. Permanent and cumulative health records are kept of every child from the time he enters until he leaves school; the interpretation of these records is invaluable in understanding the behavior and needs of boys and girls. The nurse serves the high school and six elementary schools with regular visits and emergency calls for first aid in case of accidents or acute illnesses.

Nurse and Teacher Cooperate

There is close cooperation between the health service and instruction. The nurse aids the teacher by furnishing literature, posters and pertinent information and by discussing problems with classes when the teacher believes that technical information is necessary. She helps the teacher make adjustments for handling physically handicapped children more advantageously. All crippled children of school age are followed up to determine whether or not the treatment prescribed by the James Whitcomb Riley Hospital of Indianapolis is being adhered to.

There is an extensive program for obtaining the correction of physical defects discovered through the medical and dental examinations. Home visits are made by the nurse urging the parents to respond to the suggestions of the physician and dentist in regard to the necessity for glasses, x-rays of teeth, x-rays of chest,

tonsillectomies and adenoidectomies. For indigents there are funds available for corrective treatment. The sources of these funds indicate the importance of having the school and official and nonofficial community agencies working together for the benefit of the child. The expense of the correction program is borne by the school city, Montgomery County welfare department, community chest and service clubs.

The school also has the cooperation of local physicians, local government officials, the county tuberculosis association and the county welfare department in the referral of cases to the Riley Hospital, the tuberculosis sanatorium, School for the Blind, School for the Deaf and other institutions.

Immunization Required

The preventable communicable diseases and handicapping defects are given extensive consideration because of their far-reaching implications to the school. The parents of all preschool children are urged to obtain smallpox vaccination and diphtheria immunization for their children. One of the first items to be entered on a child's permanent health record is a notation of the immunization given by the family physician. If the parent is not able to take the child to his family physician, the immunization is given by the school physician providing the parent consents to the treatment. Since immunization should be given before the child enters school or as soon thereafter as possible, Crawfordsville's preventive program is focused on the kindergarten and first grade levels.

The tuberculin patch test is given in the ninth, eleventh and twelfth grades to all members of athletic teams and to possible cases referred to the nurse by classroom teachers. Materials are furnished by the Montgomery County Tuberculosis Society.

In the case of those who have a positive reaction to the patch test, x-ray and other laboratory tests are provided by various community groups. When the x-ray and other investigations indicate an active case of tuberculosis, the nurse again seeks the cooperation of those community agencies that will make it possible for indigents to receive the proper treatment and care.

Included in the school curriculums is a hearing and speech program. If a child has a hearing defect, the parent is advised to consult an ear specialist. The school's interest does not stop here; the nurse visits in the home to show her interest in the child and attempts to persuade the parent of the importance of guarding the child's health. Follow-up examinations are made.

Health and safety are important parts of the total program at Crawfordsville. Each boy and girl is required to earn a credit in health before graduation. Teachers and administrators believe that the ninth grade is the logical place to present health instruction in the high school, for children at this age are more receptive than they are later and health knowledge is essential to good living; therefore, the earlier the pupil is given the opportunity to acquire this information the more beneficial it will be.

Girls enrolled in the vocational home economics department are exempt from the regular health course since the practical experience that is received in nutrition, home nursing and other courses is at least equivalent to the instruction that the other pupils receive.

Health Is Made Desirable

Teachers have found that "health for health's sake" does not interest high school boys and girls; therefore, emphasis is placed on "health for fun, attractiveness and well-being." When the subject is approached from this point of view, posture, the condition of the skin, hair, hands, feet, teeth, voice, vision, hearing and those health practices which improve appearance and well-being become the nuclei for unit study.

The responsibility of each individual for community health not only is stressed in the instructional program but is made practical through the schools' communicable disease control program (immunization, patch testing, exclusion, and so on). In addition to this health instruction, an additional year of health and first aid is given to the seniors, as suggested by the state physical fitness program.

Each boy and girl is required to take a course in safety before being graduated from high school.

Physical education activities are a part of the total health program at Crawfordsville and the schools' equipment and facilities are indicative of the importance placed upon this particular phase of school life.

The physical education period is fifty minutes in length; five minutes are allowed at the beginning for dressing, and thirteen minutes at the end are allowed for showers and dressing, leaving thirty-two minutes for actual activity.

Five classes of tenth, eleventh and twelfth grade boys and five classes of tenth, eleventh and twelfth grade girls have physical fitness classes five days a week.

Frequent Tests a Part of Schedule

Each boy and girl is weighed, measured and given Bancroft's posture test each six weeks. The information is recorded on permanent health record cards. The period grade is determined by written tests on rules, skill tests in all team and individual activities, self-testing for strength and endurance and by two inspections given regularly, one for clean lockers and clothing at the beginning of the period, the other at the close of the period when individuals are checked as to whether or not they have taken a shower.

Interscholastic sports are an important part of the physical education curriculum. Three coaches devote their time to four major sports: basketball, football, wrestling and track. Approximately 175 boys participate in the athletic program.

There are three factors in this program of which one is keenly conscious. First, the administrators, teachers and school patrons realize that some weaknesses still exist but with this realization is coupled a determination to correct them as soon as possible. Second, this is not merely a war or an emergency program. It is being developed on sound principles and along accepted lines and this development will be continued in the future. Third, the trend toward closer cooperation among the school, the community and all other interested organizations is clearly demonstrated.

It indicates beyond a doubt that if the boys and girls growing up today are to be given the greatest advantages possible their curriculum must be based on more than the usual six hour school day; it must be a twenty-four hour program, including pupil environment and living experiences.

SCHOOL OPINION POLL

THE NATION'S SCHOOLS

EACH MONTH A QUESTIONNAIRE IS MAILED TO 500 REPRESENTATIVE SCHOOL ADMINISTRATORS

What About Homework?

BY A happy phrasing of his views on homework, Supt. John L. Bracken of Clayton, Mo., won first page position on many of the nation's newspapers last summer. He asserted:

"A child has as much right to close his desk and leave his worries behind him at the end of the day as does his father. The father should not have the burden of doing sonny's homework."

Doctor Bracken is spokesman for a large group, The NATION'S SCHOOLS' opinion poll for this month shows, but this large group admits that current practice even in its own school systems is not always in line with its beliefs. Parents, too, were polled; the return was 25 per cent.

Sonny is still doing the homework or at least it is being assigned to him daily. Lightly assumed or slyly evaded by Sonny or Susy Brown, the homework assignment may be a weight-crushing burden to Sonny or Susy Jones. Yet the Browns may be more in need of outside study than the Jones children.

Satisfactory home conditions for study are presupposed by teachers in assigning homework, yet what checking has been done on home lighting conditions in your town? Is there parental enforcement of an atmosphere of quiet for Sonny's hour or two of home lessons or does the radio blare, the mother telephone and father harangue with his cronies in the same room?

As may be seen from the tabulation, few schoolmen or parents favor daily homework assignments earlier than the fourth grade. They realize that some free reading is being done by the younger fry and they expect the teachers to ask this group merely to do a little exploring and to report back to the class.

From the fourth grade upward, both the superintendents and parents reporting favor a somewhat steady progression in the amount of homework. Most of them think an hour a proper evening's stint for ninth grade pupils. By the tenth grade they would step up the home assignments to an hour and a half or two hours.

Mrs. James C. Parker, state president of the Michigan Congress of Parents and Teachers, would abolish all home work prior to the eighth grade level. From then on she considers an hour an evening sufficient with two hour home assignments on the junior college level.

"It is important for younger boys and girls to have opportunity for ample physical recreation, to avoid eyestrain and to have the opportunity for such home duties and companionship with parents as are in accordance with their age level. The seemingly small amount of outside study for older pupils is based on the idea that a work-and-school program, one with much responsibility in extracurricular activities and time for recreation, is necessary for a well-rounded personality."

QUESTION ASKED, OPINIONS EXPRESSED

In your opinion what is the maximum amount of daily home work that should be done by pupils at the following grade levels?

FIRST GRADE	SUPTS.	PARENTS
No homework	93%	94%
15 to 20 minutes	1%	0%
30 minutes	5%	6%
One hour	1%	0%

SECOND GRADE	SUPTS.	PARENTS
No homework	83%	94%
15 to 20 minutes	6%	0%
30 minutes	10%	6%
One hour	1%	0%

THIRD GRADE	SUPTS.	PARENTS
No homework	73%	94%
15 to 20 minutes	8%	0%
30 minutes	17%	6%
One hour	2%	0%

FOURTH GRADE	SUPTS.	PARENTS
No homework	46%	50%
15 to 20 minutes	12%	0%
30 to 45 minutes	32%	50%
One hour	9%	0%
1½ to 2 hours	1%	0%

FIFTH GRADE	SUPTS.	PARENTS
No homework	38%	40%
15 to 20 minutes	12%	0%
30 to 45 minutes	33%	53%
1 hour	16%	7%
1½ hours	1%	0%

SIXTH GRADE	SUPTS.	PARENTS
No homework	34%	30%
15 to 20 minutes	7%	0%
30 to 45 minutes	36%	47%
1 hour	21%	23%
1½ hours	2%	0%

SEVENTH GRADE	SUPTS.	PARENTS
No homework	8%	30%
15 to 20 minutes	2%	0%
30 to 45 minutes	35%	12%
1 hour	50%	58%
1½ hours	5%	0%

EIGHTH GRADE	SUPTS.	PARENTS
No homework	6%	12%
15 to 20 minutes	2%	0%
30 to 45 minutes	33%	0%
1 hour	45%	76%
1½ to 2 hours	14%	12%

NINTH GRADE	SUPTS.	PARENTS
No homework	4%	0%
30 to 45 minutes	19%	1%
1 hour	52%	88%
1½ to 2 hours	25%	11%

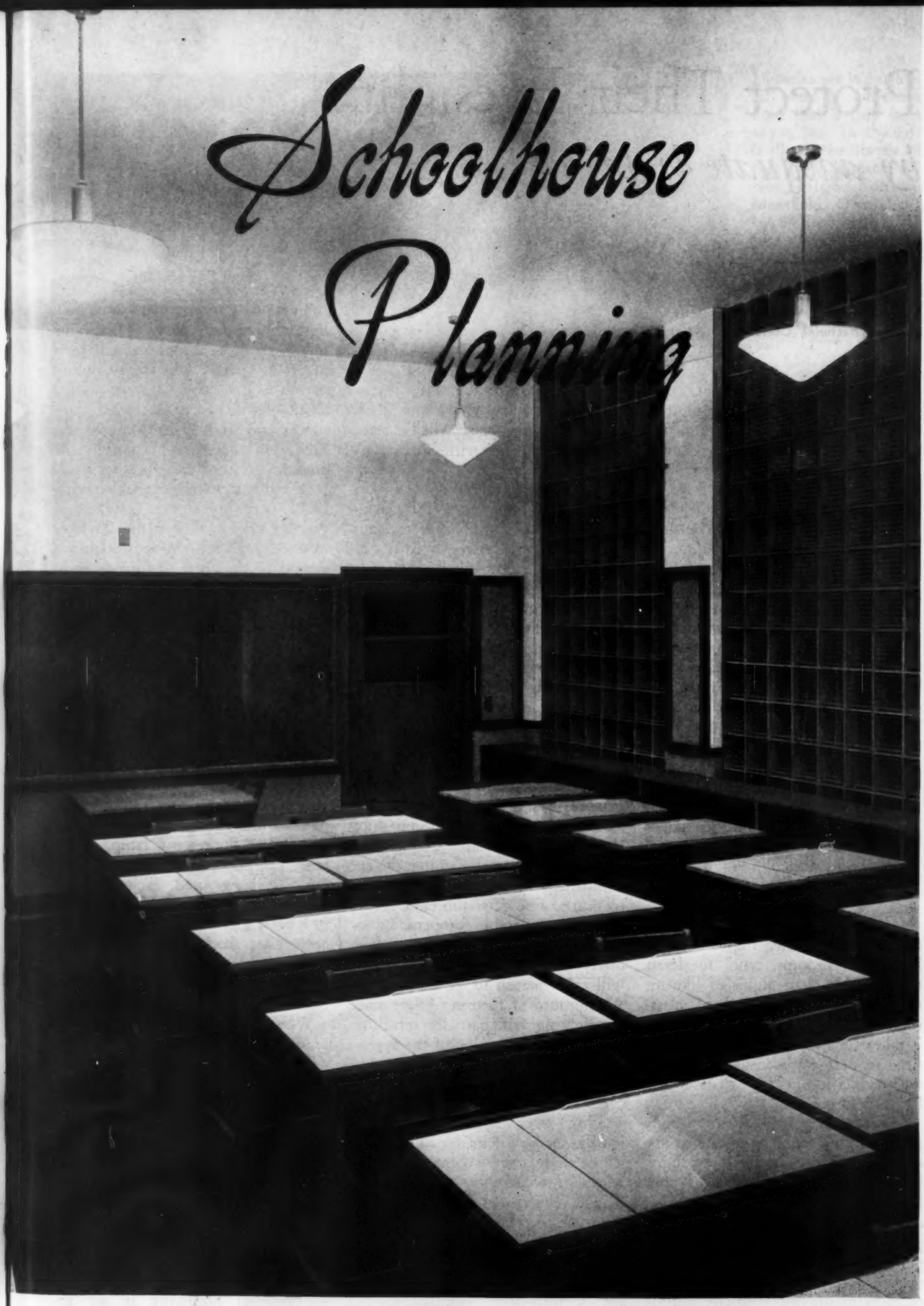
TENTH GRADE	SUPTS.	PARENTS
No homework	1%	0%
30 to 45 minutes	3%	0%
1 hour	30%	47%
1½ to 2 hours	66%	53%

ELEVENTH GRADE	SUPTS.	PARENTS
No homework	1%	0%
30 to 45 minutes	3%	0%
1 hour	21%	11%
1½ to 2 hours	69%	88%
3 hours	6%	1%

TWELFTH GRADE	SUPTS.	PARENTS
No homework	1%	0%
30 to 45 minutes	3%	0%
1 hour	20%	11%
1½ to 2 hours	67%	88%
3 hours	9%	1%

JUNIOR COLLEGE	SUPTS.	PARENTS
No homework	1%	0%
1 hour	3%	0%
1½ to 2 hours	22%	53%
3 hours	6%	18%
4 hours or more	5%	12%
Not voting	63%	17%

Schoolhouse Planning



The artroom of the Johnny Appleseed Junior High School at Mansfield, Ohio, is 17½ feet by 24 feet, with a 12 foot ceiling. It is illuminated by six 500-watt luminaires which provide an average illumination of 35 foot-candles.

Protect Their Eyesight
by adequate lighting

JOHN J. NEIDHART
Lighting Engineer, Westinghouse Electric and Manufacturing Company, Cleveland

FEW parents are aware of the importance of adequate lighting in schoolrooms. Good lighting, first of all, is essential for the conservation of eyesight. Twenty-two per cent of our children have defective vision and, if they go to college, 40 per cent have it before they finish.

In modern schools children devote three times as many hours to reading as their parents did, being required to study numerous library and reference books besides their textbooks. They must also read diagrams and figures on blackboards at some distance away. They must perform difficult visual tasks with an average of less than 10 foot-candles of illumination from light sources which frequently are so bright that the glare hurts their eyes. When they are writing, they are troubled by annoying shadows on their paper which distract their attention and make seeing difficult.

Bearing on Student Aptitude

Good lighting also has a bearing on student aptitude. Pupils in well-lighted classrooms tend to learn more readily than pupils of like intelligence in poorly lighted classrooms. This is understandable since it takes time to see, but it takes less time to perform a visual task with adequate illumination than when lighting is poor.

Many seemingly backward pupils are behind in their studies because of defective eyesight and poor lighting. Some progressive schools now have sight-saving classrooms for children whose vision is seriously impaired. Those with less serious impediments to vision do not require this extreme measure. The sensible thing is to provide adequate illumination in all rooms, with sight-saving classrooms for children requiring them. Then children with normal eyesight can study without harm and the handicapped will be better able to keep up with their classmates.

Lighting of schoolrooms, furthermore, has an effect upon the general health. Seeing requires the expenditure of nervous energy. It is estimated that a person with normal vision consumes one quarter of his bodily energy in seeing under adequate lighting. If vision is poor or illumination improper, the consumption of bodily energy is increased considerably above normal. Poor vision or improper lighting may cause uncertainty, nervous tension, annoyance and distraction which in turn lead to eyestrain, headache and bodily fatigue. Since eye health and general health are closely interrelated, educators should do something about poor classroom lighting.

Researches have shown that the eye adjustment needed for the discrimination of fine details in close seeing tasks is considerably compensated for by adequate lighting. It is evident, therefore, that adequate illumination will aid a person to see clearly with a minimum of focusing effort since the lighting will partially substitute for the focusing action of the eye.

Dingy Classrooms Depressing

As for the psychological effect of lighting upon children, we can hardly blame them for not liking school if their classrooms are dingy, with dark woodwork and drab walls. Bright, cheerful surroundings will do much to create a pleasant atmosphere that will take some of the drudgery out of school work. With the dissatisfaction caused by unpleasant surroundings eliminated, the children will like school better and will take more interest in studies.

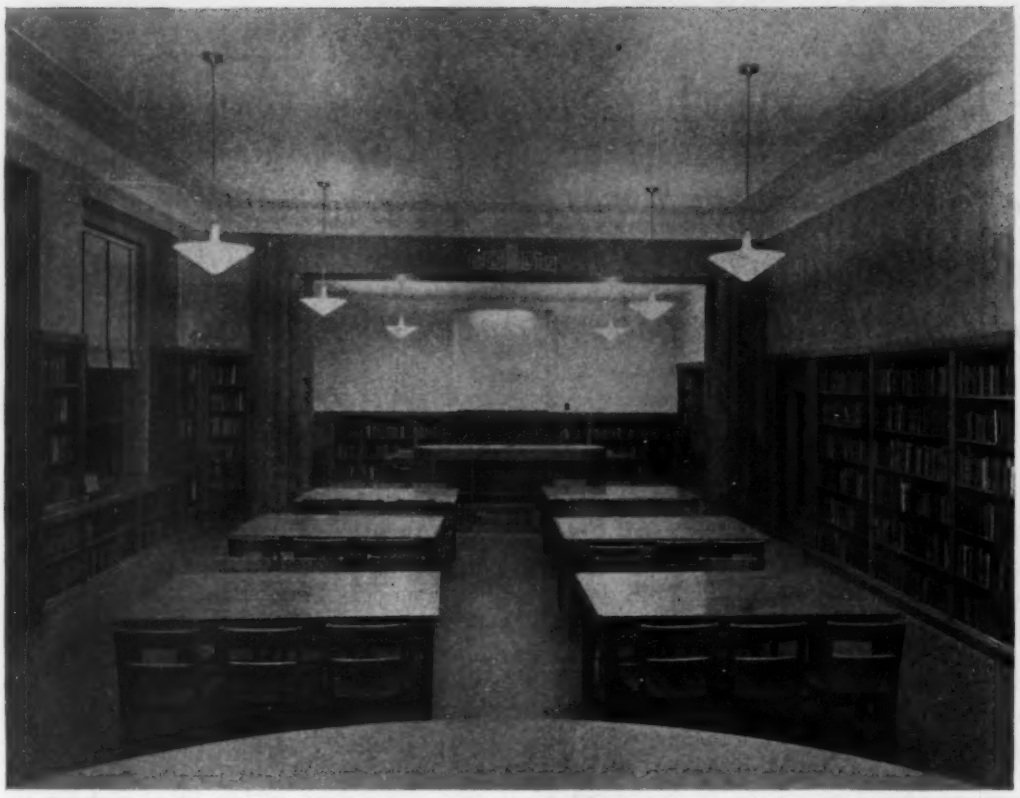
Two requirements of a school lighting installation are (1) an adequate quantity of light and (2) light of proper quality. A level of illumination of at least 20 foot-candles should be provided for in all classrooms and study halls. Ease of seeing is in direct proportion to the amount of light cast on the visual task and it is, therefore, obvious that higher levels are desirable whenever possible. To maintain the 20 foot-candle level, the lighting installation should be designed to furnish 25 to 35 per cent more light initially than is desired. All lighting equipment should be cleaned periodically so as to prevent the illumination from being reduced 50 per cent or more.

No Glare With Good Lighting

Light should be uniformly distributed, well diffused and free from direct or reflected glare. There are two light sources which may be used to provide adequate illumination, namely, the incandescent lamp and the newer fluorescent lamp. With few exceptions, the incandescent lamp is now used exclusively in schools today. It is usually enclosed in a glass globe luminaire or has an open glass shade, neither of which provides adequate shielding or reduction in brightness to eliminate glare.

When the incandescent lamp is used in a luminous indirect or totally indirect luminaire, it can no longer act as a glare source since the light is directed toward the ceiling where it is scattered and diffused before being redirected downward. A properly designed indirect lighting installation will provide an adequate amount of uniform, well-diffused glare-free illumination.

The fluorescent lamp is a source of more diffused light and is less bright than the incandescent one. An indirect luminaire is not required to obtain proper lighting with these lamps. They cannot be used



Libraries are in particular need of adequate light that is free from any glare. To the left is shown the library of the John Simpson Junior High School, Mansfield, Ohio, 22½ by 44 feet, with a 13 foot ceiling. Eight 500-watt luminaires provide illumination of 23 foot-candles.

in unshielded fixtures, however. A semi-indirect luminaire, which directs about 60 per cent of the light upward and 40 per cent downward, is more desirable.

Important to any lighting installation is the brightening up of the surroundings. The ceiling should be painted a flat or eggshell white which will reflect at least 80 per cent of the light striking it. The walls may be some light, pleasant color with a reflection factor of from 50 to 60 per cent. Glossy paints should never be used because their sheen causes a glare of reflected light. Floors should be light and the amount of blackboard area reduced.

Light directed onto the ceiling is glareless, scattered and diffused. Classroom in the Johnny Appleseed Junior High School, lighted with six luminaires mounted on 10 by 10 foot spacings, 500-watt lamps in the inside row, 300 watts for the outside. Inside rows are photo-electric controlled.

A War-Time Modernization Program

This school had a problem to meet. It was losing pupils because it was getting down at the heel and it could not wait until after the war was over to remedy the situation.

J. WILLIAM QUINN

Supervising Principal
New York Mills Grade and High School
New York Mills, N. Y.

WHEN the New York Mills board of education saw pupils beginning to leave the local school district to attend school elsewhere, it decided that certain steps would have to be taken immediately to forestall further drop in attendance. These steps included:

1. The establishing and equipping of vocational departments in the New York Mills Grade and High School.
2. The professional development and training of the teaching staff through in-service workshops and consultant service with neighboring universities.
3. The purchase of new furniture.
4. Exterior repairs and redecoration of all classrooms, corridors, lavatories, offices and the foyer.
5. Establishment of a uniform system of maintenance.

After conferences with state department heads, the school architect and contractors, it was decided that, despite war-time restrictions, it was not only feasible but urgent that a program of alterations and refurnishing be carried out. The War Production Board gave its approval for priorities on essential material and equipment and it was discovered that more than 80 per cent of the materials could be purchased either on the regular school priority or without any.

W.P.B. officials worked in harmony with school officials, particularly in the establishment of an industrial arts department. Much of the needed machinery was in the priority classification but, when W.P.B. saw that the school through its industrial arts program would be training boys who would be entering the armed services or industry, its approval was forthcoming.

A further gearing of the school to the war effort was effected by installing a program of school extended services under the Lanham Act for children between the ages of 5 and 14 whose parents were working in war plants. A child care center accommodating 55 youngsters from 7 a.m. to 7 p.m. six days a week is another war-time feature.

To assist in building good health and carrying on a program of proper nutrition, a modern school cafeteria was included in the plans.

When work was started on repairs to the building, examination indicated the need for reroofing one en-

The original lunchroom (left) was in serious need of modern equipment, cooking facilities and other changes.

The new cafeteria (above) is a bright and attractive spot in which to eat. Hot, nutritious meals are served.

tire wing. For this purpose a bonded slag roofing was used. Flashings were sealed and calked. This work was a preface to the redecoration planned for the interior. Present plans call for the redecoration of a specified number of rooms each year.

Classrooms Painted First

The redecorating, started in early summer, did not terminate until fall because of the extensive program. Classrooms were painted first, corridors last so that painting contractors could proceed without interrupting the school program. High school classrooms were given off-white ceilings and light cream walls, and the woodwork was given a natural finish. Every effort was made to keep the rooms light. Floors were sanded, sealed and waxed.

In some places, where there is heavy traffic, such as the corridors, floors were sanded and sealed, given two coats of gym seal, rubbed with steel wool and finished off with two applications of a water-repellent wax.

Several classrooms were refurnished with new movable furniture. Older fixed types of desks and chairs in good condition were placed on runners to facilitate cleaning and also to aid in the establishment of a new system of maintenance. Corridors and the foyer were given flat white ceilings and peach sidewalls with a 5 foot brown wainscoting.

Classrooms in the elementary grades were redecorated with off-white ceilings and pastel colors. Woodwork was finished in maple. Each grade room was also equipped with a 42 inch round library table.

As much fluorescent lighting as is possible under W.P.B. regulations was installed.

Kindergarten Moved

The first room which was completely remodeled and newly equipped and which was to serve as a preliminary "shot in the arm" in awakening the interest of the board of education, parents and pupils was the kindergarten. This department had been in a basement room but is now on the first floor in a classroom formerly used for high school pupils. Blackboards were removed and cork bulletin boards installed. The plumbing and heating equipment was changed and a low level sink with a bubbler for small children was put in. Five fluorescent lighting units were installed.

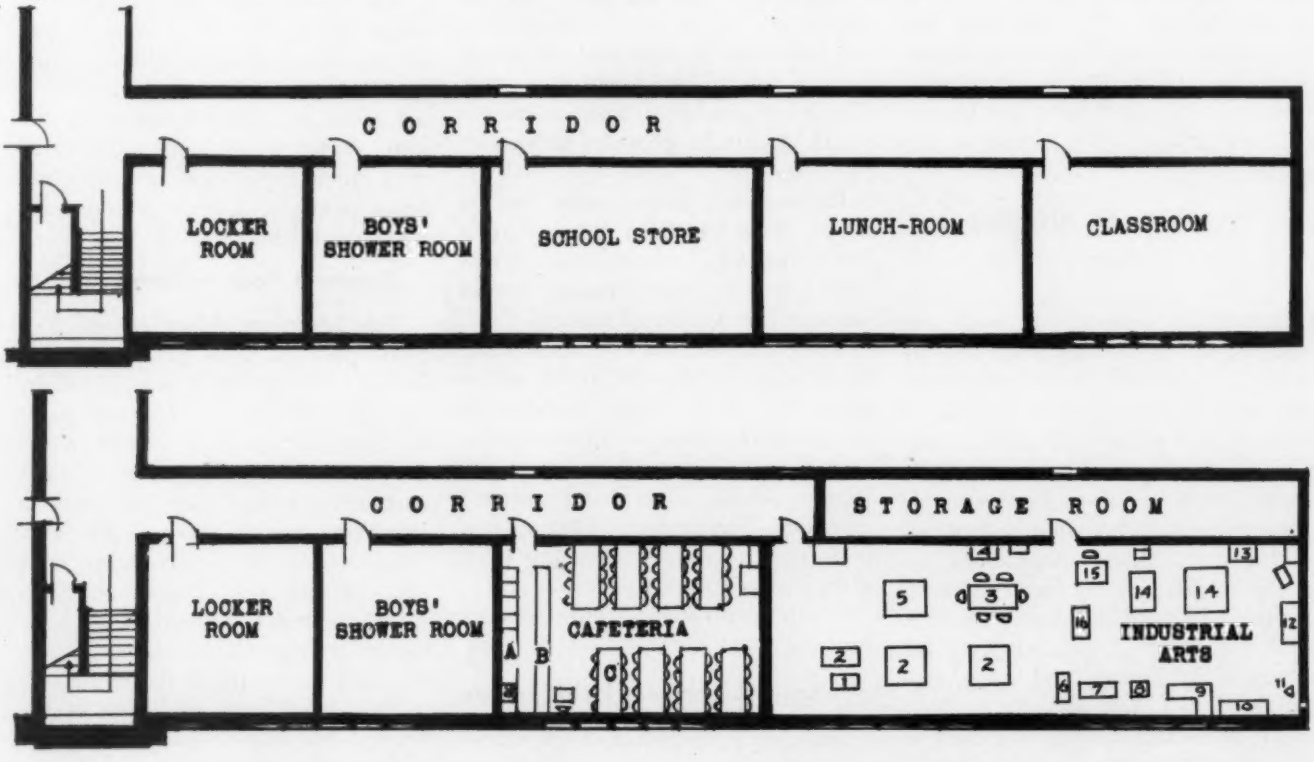
Decoration Keyed to Children

The ceiling was painted off-white, the sidewalls were tinted light creamy yellow and the woodwork was given a light maple finish. New furniture was purchased consisting of round tables with chairs of the proper height for kindergarten children. After the floor was sanded, circles and other designs were painted on it to amuse and help orientate small youngsters during their first school days. The floor was then sealed, varnished and waxed. Colorful draperies were provided to lend a homelike atmosphere. Pupils studying decorative arts painted the piano and bench under the guidance of the homemaking teacher. This was beautifully done in old ivory, with stencil designs.

The basic theory in all remodeling has been that rooms must be light, cheerful, homelike; they must stimulate the imagination of the children and contribute to their happiness.

For proper eye protection, double roller shades were provided, replacing shades of the traditional type

Basement space was remodeled to provide for a cafeteria and industrial arts rooms as shown below.



A—Cooling unit
B—Counter
C—Tables and chairs

1—Glue table
2—Woodworking bench
3—Planning table
4—Library
5—Paint table
6—Jig saw
7—Wood lathe
8—Drill press
9—Engine lathe
10—Grinding buffing unit
11—Foundry unit
12—Soldering table
13—Machine bench
14—Metal tables
15—Desk
16—Table saw

The new industrial arts room.

pulled from a roller at the top. Translucent shade material was used to produce a light that is without either glare or gloom. This is one improvement for which the members of the staff are particularly grateful.

Perhaps the most interesting remodeling project was the combining of two basement rooms so as to provide a spacious industrial arts classroom, 65 feet by 22 feet in size. By walling off one end of the long corridor onto which all basement rooms open, an ideal space for lumber racks, shelving and paint storage was created for use of the industrial arts pupils.

New Industrial Arts Shop

The new industrial arts shop is a light and attractive room. Despite basement windows, a sufficient amount of light was obtained by using a light-colored acoustical ceiling with cream sidewalls. The maple flooring was sealed and given a natural finish. At the far end of the room a concrete floor 18 feet by 22 feet was installed for the purpose of servicing machinery and motors. An overhead door for the ramp has been included in postwar plans. There is a service door at ground level for bringing in lumber and other materials. It is also a fire exit.

An acoustical ceiling was used in this room to combat noise within the shop and in the classrooms above. Fluorescent lighting was installed. Benches and machinery were provided with ample space between them for projects upon which the pupils might be working.

The floor around the machinery was painted with a light coat of shellac and fine sand to prevent slipping. A prominent red circle indicates to shop workers that only one person should be in the circle at a time; this was done with a view toward safety and efficient management.

Machinery, for the most part, is placed in a single line which enables the instructor to supervise the operation of several machines at a time. Power is controlled from a master panel so as to provide maximum protection.

Preliminary plans called for a forge. This has been changed to a bench furnace, however, since it was found that a forge probably would discolor the walls and ceiling.

The cafeteria, in the same basement wing, is adjacent to the industrial arts shop. This department originally had little or no equipment except miscellaneous benches, a collection of odd chairs and assorted crockery. The artificial lighting was poor and the walls and ceiling were dirty and unattractive. Here is where children ate their cold lunches brought from home.

Attractive Lunchroom Helps Morale

Since no single place in the school program seems to have greater potentiality for building morale than the lunchroom, an all-out effort was made to have a new cafeteria that was beautifully designed, attractive to pupils and complete with necessary serving and cooking equipment. A sound-absorptive ceiling was installed which does away with the usual clatter and noise of a school cafeteria. Lighting is fluorescent. Sidewalls are painted a honey yellow. The windows have attractive draperies designed and made by the girls of the homemaking department. Art pupils undertook the painting of mural decorations.

The floor is of asphalt tile in light marbleized colors. This material was used to ensure cleanliness and proper maintenance. Wainscoting is 4 feet high. The cooking units include a stove with direct ventilation provided to the outside, a cook's table, a serving table, a refrigeration unit, a washing unit and garbage facilities.

A 17 foot cafeteria counter with black linoleum top 24 inches wide with wood molding on four sides is equipped with steam and cold trays. The counter is 36 inches high, set on 6 inch cast-iron legs; its facing is of light walnut. There is shelving beneath for dish storage. The tray slide consists of three bars of hard maple used in place of metal. Eight tables and 64 chairs, finished in walnut to match the counter, complete the cafeteria facilities.

The noon hour is staggered in three shifts. Breakfast and supper are served to children whose parents are working in war industries.

Locker and shower rooms in the same wing have been redecorated with three applications of moisture-proof paint. The ceilings and walls are light green.

Basement Floor Problem Solved

The basement floors are of concrete and had to be continually dusted. This problem was solved by sealing and applying concrete paint in emerald green, a restful color. Two coats of nonslip water-repellent wax were applied over the paint, a treatment which makes for easy maintenance and at the same time gives an attractive appearance. Sidewalls are peach colored, with light brown wainscoting, a blue-gray border, and the ceiling is flat white.

This general rehabilitation of the New York Mills Grade and High School has proceeded beyond the experimental stage. Initial efforts have been fully appreciated and have given a lift to the morale of teachers, pupils and school patrons.

The Nation's Schools Survey Reveals Postwar Preferences *with regard to*

GLASS BLOCK—WINDOWS WINDOW SHADES—DOORS

J. W. CANNON JR.

MORE of the outside walls of school classrooms will be constructed of glass block in the postwar era than heretofore if school men carry through with their present plans. This is another of the interesting developments revealed by The NATION'S SCHOOLS survey of postwar building materials and equipment. About 25 per cent of the superintendents have indicated their desire to use glass block in this manner, combining it with regular types of clear glass windows for the ordinary visual areas.

With the development of light directional glass block, this type of construction becomes more feasible and satisfactory than was possible with the earlier versions of this product. At least one manufacturer is now carrying on extensive research to determine how much the natural light of a classroom can be increased through using blocks which bend the light upward to strike the ceiling and then reflect throughout the room.

In such installation the block below six feet eight inches from the floor line is straight nondirectional so that all refraction takes place above the ordinary eye level.

Glass block will be used even more widely in other areas of the building. Almost 55 per cent of the superintendents and two thirds of the architects feel it is particularly suitable for stair wells, while approximately 20 per cent want to use it for interior partitions. Because of its inherent insulating value and ability to give light without destroying privacy, it will probably be used extensively in swimming pools, examination rooms and as screening walls for toilet rooms.

Metal window frames will also be more widely used than in the past, particularly if the corrosion-proof type of metals can be made available at reasonable cost. This is indicated by the fact that 68 per cent of the superintendents want metal window frames in their new school buildings with corrosion-proof metal outranking painted steel by 3 to 1. Architects do not show as marked a preference for metal, only slightly more than half favoring it over wood but those who do are just as strongly inclined to the corrosion-proof type.

Those who want wooden window frames seem conscious of the advantages of the toxic preservatives developed during the past several years that make wood rot- and vermin-proof. Several newer developments in the treating of wood, such as impregnations that can impart to soft woods all the features of hard woods, are now emerging from the laboratories and may affect future window design.

Apparently schools want windows in which the glazed sections are movable, for only an insignificant number seem to feel that fixed panes with adjustable louvers are adaptable to their purposes. Of the various types of movable sash, casements will be used in practically no instances. Projected or double-hung windows will be used almost universally, a slight preference being shown for the former. This may be even more marked than at present by the time building is ready to go ahead as several window manufacturers are designing special projected types for schools.

In the past, shading, particularly on metal windows, has frequently been a problem but constructive cooperation between metal sash manufacturers and shade manufacturers holds promise of eliminating many of the former difficulties for the ultimate benefit of school children. In selecting windows for schools, it is important to anticipate the manner in which they are to be shaded and to be sure that there are no projections toward the inside of the classroom that will interfere in any way with operation of shades.

Regardless of the type of window to be used, there is a distinct preference of 4 to 1 for a number of small panes rather than one large pane of glass. Small lights of glass are a distinctive feature of certain styles of architecture, notably Colonial, which the survey showed will be the style in a fourth of the new school buildings. In other types of construction the preference is probably based on the excessive window breakage occurring in many school buildings and a consequent reduction in the cost of replacements. Apparently this factor offsets that of the slight reduction in light caused by additional muntin bars and the somewhat greater difficulty of washing several small panes as compared with one large one.

Of the many ways to shade a classroom window, such as by single shades from the top, single shades from the bottom, double shades from the top and center and various other combinations, the one that stands out as the best is a double shade supported near the center of the window. For some years school building authorities and leading shade manufacturers have recommended this type of installation and apparently these recommendations have been accepted as 80 per cent of the school men will have such an installation in their postwar buildings. Another 10 per cent will hang single shades from the top and the remaining 10 per cent will hang them from the top and center.

Of the three general types of materials used for shade cloth, namely, cotton duck, pyroxylin and cambric, the first-named is preferred by two thirds of the school superintendents. About one fourth want pyroxylin and the remainder cambric. Architects have the same general preferences but not to the same degree.

The shading problem in the post-war period will be further complicated by the substantial number of schools which will be providing darkening shades for their classrooms in order to use projected pictures. While between a third and a half of the new schools will equip their classrooms with darkening shades, an even greater percentage of laboratories and practically all auditoriums will be so equipped.

The unquestioned increase in the use of projected pictures in the post-war era should cause every school man to consider what provisions are to be made in his new buildings for the effective use of this educational medium. From a technical point of view, absolute darkness would be the ideal preliminary to projection for the clarity and definition of the screen image depend on the light contrast obtainable. This condition is not practicably possible in the average classroom but, with the improved picture screens, increased efficiency of projectors and an accumulating experience in the technic of darkening shade installations, highly satisfactory conditions are obtainable.

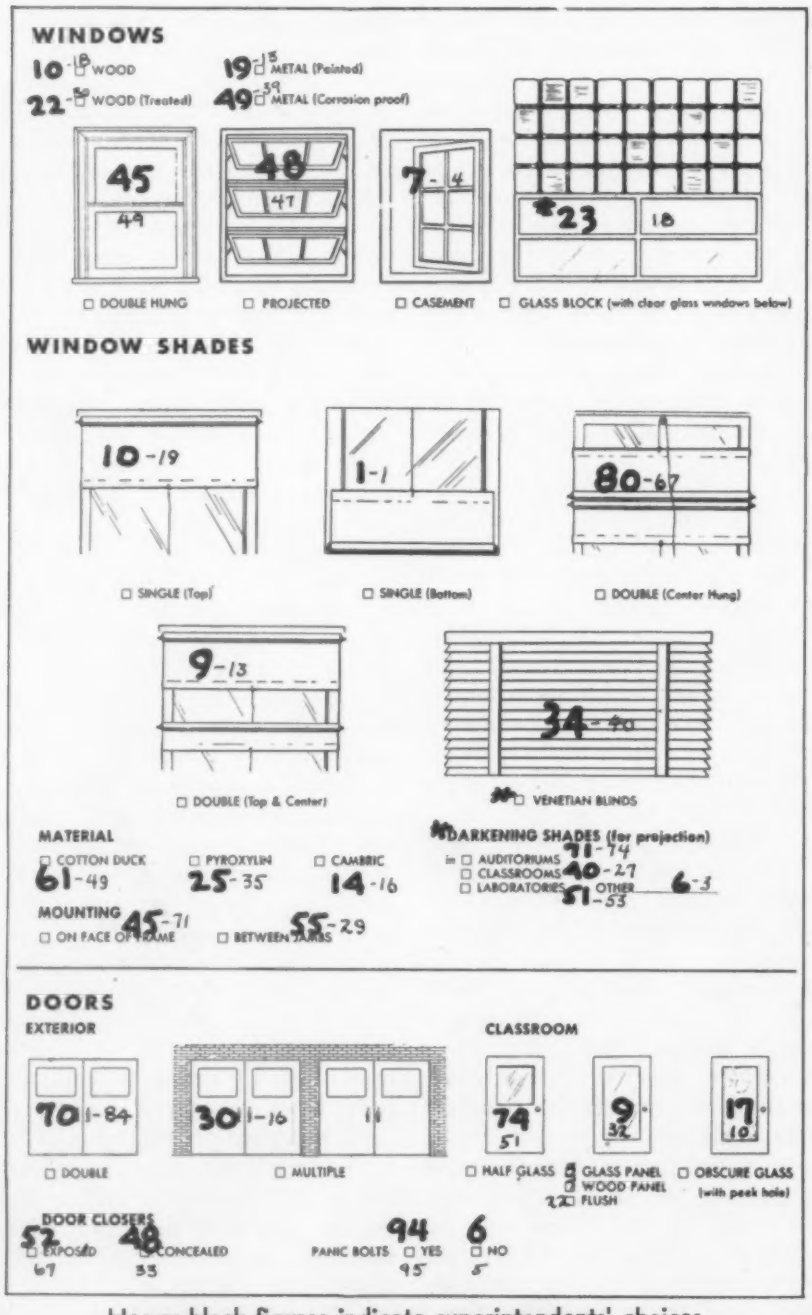
The use of glass block on exterior walls creates an additional problem in darkening the classroom sufficiently for projected pictures but manufacturers of shading devices are working on a solution and will undoubtedly develop a satisfactory draw curtain arrangement. This need should be anticipated in the early stages of construction so that provisions can be made for the necessary paraphernalia of brackets, traverses, and so on. Mechanical ventilation of the classroom, which makes it possible to keep all windows tightly closed, simplifies the darkening problem considerably. Where no darkening has been provided for, the shadow box type of screen offers an acceptable solution. New developments in a built-in and permanent shadow box arrangement will soon be announced.

Venetian blinds are going to be used more extensively than heretofore. More than a third of the superintendents will have them somewhere in their new buildings, in either the administrative offices, libraries, cafeterias, community rooms or elsewhere. On the other hand, they will be used infrequently in the classrooms. Architects are more partial than schoolmen to this means of light control and would use them even more widely in schools.

When it comes to doors for classrooms, there seems to be little question as to type, for 75 per cent believe that doors having the upper half of clear glass are best adapted to school use. Practically no one wants a full glass or even a full wood paneled door but 15 per cent are inclined toward an obscure glass with a clear glass peephole.

Practically all classroom doors will be equipped with door closers which are essential in schools in order to eliminate the danger of slamming doors and the possibilities of shattering the glass panels. The school field is almost equally divided between exposed and concealed door closers; architects prefer the former 2 to 1.

For outside entrances one set of double doors is apparently preferable to the multiple type of installation but this, of course, will vary to some extent with the size of the building. On outside doors panic bolts will be almost standard equipment, even in those states that do not require them by law, for almost 95 per cent of the superintendents plan to install this important safety feature.



Heavy black figures indicate superintendents' choices. Light figures indicate architects' choices. All figures represent percentage of the total replies received.

Essentials of a

High School Vocational Agriculture Program

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AMERICA'S future farmers are in our public schools today. With few exceptions, they are the sons of present-day farmers. Only a small percentage of them will become graduates of agricultural colleges. Therefore, if most of these future farmers of our nation are to receive in the schools organized and systematic instruction and training for their life work in agriculture, they will have to get it in high school.

If all the farmers in a community had had at least three or four years of high school instruction and training for farming as it is now being offered in good departments of vocational agriculture, they would have had fairly good school preparation for this occupation.

It was to encourage public high schools in agricultural communities to give farm boys, along with training for effective citizenship, an opportunity for practical instruction and training for farming that Congress, in the National Vocational Education Act, supplied funds to help local school districts bear the cost of this type of education. Later Congress provided additional funds supplementing those made available in the Smith-Hughes Act.

Teaching Agriculture a Duty

A good department of vocational agriculture will enable the rural high school to render effective training for proficiency in farming and for the development of the type of prosperous public-spirited citizen farmer that America wants. This is one of its responsibilities.

In every effective vocational training course, theory and practice must go hand in hand. Theory is needed to guide practice, and practice, both operative and managerial, is necessary to fix right habits of doing and thinking. To observe this fundamental principle boys in vocational agricultural classes are first taught in the classroom how to farm, after which, in their individual farming programs at home, they put into practice the things learned in the classroom. These individual farming programs consist of production and improvement projects and of supplementary farm training jobs. Learning to do and doing to learn always characterize efficient instruction in vocational agriculture.

Local Farming Needs Must Be Met

There is no such thing as a set or prescribed course of instruction in this subject. Each instructor is his own curriculum-maker; it is his responsibility to formulate and to offer instruction that meets the farming needs of the boys in each of his classes and that is specifically concerned with the types of farming found in the community.

Every farmer is an unspecialized mechanic. He is a Jack-of-all-trades. Consequently, in addition to instruction and supervised farm practice, boys taking the farmer training work in high schools receive various kinds of practical training in farm mechanics in the school farm shop. The aim of this instruction is to develop the abilities of the farm boys to do simple construction work and to repair such farm machinery and equipment as farmers in the community find it practical to do. The boys are trained to do this work with such equipment and tools as are found on the better managed farms in the community. This part of the vocational agriculture program is valuable and important for future farmers.

It is true that more boys grow up on farms than are needed to supply the manpower to manage and to operate the nation's farms. Consequently, rural high schools need a guidance program that will aid in selecting for enrollment in the courses in vocational agriculture those boys best suited to farming and most likely to become farmers. The course in vocational agriculture is specifically for those boys who need it, want it and can profit by it. A highly selected group of the right kind of boys is an important success factor in any department of vocational agriculture.

"Strings" Attached to Federal Funds

There are a few so-called "strings" attached to the use of federal funds made available for vocational agriculture. The Smith-Hughes Act stipulates that the training shall be under public school supervision; that the controlling purpose of the instruction shall be to fit boys for useful employment; that the work shall be of less than college grade and be designated to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home; that schools offering the work shall provide for directed or supervised practice in agriculture on a farm. This federally supported program has for many years been under the supervision of the U. S. Office of Education.

Boys in vocational agricultural classes usually have farm shop work twice a week. Changing into work-

ing clothes and getting out tools and equipment take time. Any reasonable person can see that a double period is essential for shop work. Also, little could be gained by the many essential field trips to farms in a single school period.

All the boys have individual problems arising in their supervised farming programs. These, too, take time. In addition, there is the class instruction in agriculture. When one considers all the things that go on in classes in vocational agriculture, he begins to see the need for the double period. If instruction in vocational agriculture were merely a matter of listening to textbook recitations, one period would be ample. Surely, no progressive school administrator would advocate a textbook recitation course as an effective means of training future farmers.

It is a mistake to state that the school farm shop and its equipment cannot be used for other than farmer training classes. However, the results of such use are most satisfactory when the regular shop instructor teaches the classes.

It is a waste of public funds to purchase for the school farm shop power lathes and other expensive equipment of a type that is not found on the better managed farms in the community. If such equipment can profitably be used by other classes and there is ample room for it in the school farm shop, the school district should provide it. However, although it might possibly serve some slight function in the farmer training courses, it is not really essential.

No program in vocational agriculture should tend to narrow the entire curriculum of a small high school but an effective program does require ample time. The classes can be scheduled to meet whenever they fit best into the school schedule.

To sum up, a department of vocational agriculture in a rural high school will function effectively to the extent that the school administrators have a wholehearted desire to see that agriculture, the life-sustaining industry of the community, is given the educational services that any rural high school is now capable of rendering. School administrators also have a responsibility in seeing that the department of vocational agriculture functions properly.

Character Building

the great challenge of today

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THE problem of school administration is now, and will be after the war is over, essentially one of providing the sort of school environment which will develop in young people the kind of characters which are necessary if democratic living is to be successfully realized. How is this to be done?

Educators from many different groups with varying points of view are asking and seeking the answer to this question. Many have proposed an educational program which is more related to actual life than is that of today, one which elicits more learning about responsibility, which disciplines the behavior of the pupil and develops moral character. On the other hand, some propose an increase in the sternness of requirements in academic subjects, as in United States history. Others would steep the minds of learners in the ancient liberal arts and in the world's great classics. Each group, it seems, features a plan as *the* indicated procedure for attaining the goals which are recognized as worth while by all. It is in this confusion which school administrators, teachers and boards of education find themselves floundering and squirming today.

The type of educational situation we plan for the future should be, first of all, one from which personal integrity will inevitably grow. What are the distinguishing characteristics of such a situation? For one thing, it must provide for a realization on the part of the pupil that people who live differently from the way he does also think and feel differently, that judgments made by other people may differ from his own because they have a different perspective. The school situation should enable the pupil to view himself objectively so that he may become aware of the fact that his own opinions and beliefs are the products of his own peculiar experience and that to others his opinions and beliefs may seem to be in error because of differences in living situations and experience.

Another characteristic of a situation conducive to the development of personal integrity is that it should provide for the personal commitment of the learner to some design of values. Whether the design he accepts is good or bad in our judgment may be important; it is not so important, however, as the fact that the learner has actually committeed himself to it. There is no greater error made in teaching and learning than failure to make commitment to some body of beliefs which seem to the individual to be valuable. If the educational environment is conducive to such commitment by each pupil, we could then proceed to assist him in developing better and more satisfying goals. But, if the learner has made no commitments as to belief, everyone is at sea and no one knows where to begin.

It is better to have a poor goal than to have none. It is better to be heading somewhere than to be wandering aimlessly. Only when the school environment elicits thought that commits the individual to a course of conduct and action where the con-

sequences must be confronted does it really enable the pupil or the teacher to begin the process of adaptation and reconstruction. No educational program can be adequate for the development of personal integrity unless it provides generously for situations in which the learner is challenged to personal commitment.

In the past we have been too concerned with the development of pseudoneutrality in thinking, too much concerned with giving lip service to ideals while acting according to a submerged body of values which were in direct conflict with the ideal. In this way we have developed, rather highly, the art of deceit and hypocrisy. Only if we recognize the need for expression of commitment to beliefs which we, as individuals, hold can we expect to develop the integrity which we desire.

The school has a much greater opportunity to teach the boy who believes that acquisition of money is the greatest of all goals if that boy openly and honestly expresses himself as committed to that objective than it has if the boy secretly believes that getting money is of supreme worth but accepts the idea that service to mankind is the greatest of all good, merely to be in tune with the current lip service which he hears. At least we would know where the learner was in his thinking and we would know where to begin in providing experience through which he might develop new goals. Above all, we would be encouraging honesty rather than deceit.

Encourage Factual Understanding

A second criterion to be considered in planning a character-building educational situation is that it demand an extension of pertinent factual understandings. This criterion certainly needs no selling to the American people but we cannot continue to teach facts merely for their own sake. On the contrary, the situation should be conducive to the extension of pertinent factual understandings in relation to that body of goals and purposes to which each pupil has committed himself. Unless factual understanding is directed toward the commitments of the learner, his commitments are not likely to change, develop or grow.

Referring again to the boy who is committed to the belief that the acquisition of money is the greatest of all goals, the program of education should provide for surveying facts and information which will enable that boy to evaluate his commitment. Only by this process can he learn to validate or to deny his original goal. Furthermore, what we know about learning seems to indicate that educational experience which is directly related to motives is much more likely to result in learning than one which is not.

The assertion is, then, that our educational methods, technics, materials and disciplines should be focused upon the significant orientations of the learner. The prevailing practice of running the schools in an atmosphere of pseudoneutrality serves to defeat the most important function of man's intelligence. It literally prevents the cultivation of wisdom in private and public decisions, choices, policy-making and planning. And what will democratic control be without the use of wisdom in these areas?

From the practical point of view, all this means that as teachers and administrators we must do four things: first, we must encourage learners to express their honest commitments; second, we must be aware of these commitments; third, we must organize our teaching so that the learner will acquire pertinent facts and information which will enable him to reexamine, continuously, his commitments, and fourth, we must continuously obtain new knowledge of the learner's commitments as they change and grow so that we can provide growing experiences through which he can obtain further facts pertinent to his new goals.

Teachers Help Plan New Salary Schedule

HOWARD D. CRULL

Superintendent of Schools, Port Huron, Mich.

THE board of education at Port Huron, Mich., realized early last year that better salaries would need to be paid if the services of its best teachers were to be retained. Accordingly, the superintendent of schools was authorized to invite a committee of teachers to study the salary schedule then in effect and to meet with him to discuss plans for improvement. Several conferences were held before an acceptable and workable salary schedule was evolved.

One of the most significant changes was the elimination of a salary differential between men and women. The new schedule calls for equal pay for equal preparation. While this policy expresses the principle of equal pay for equal work, a survey also revealed that many of the women teachers have economic responsibilities equal to most of the men's responsibilities and, in some cases, far greater.

The new schedule fixes the ceiling for nondegree teachers' salaries at $2200 annually. Maximum salaries for bachelor degree teachers were increased from $2200 to $2600; for master degree teachers, from $2400 to $3000. The new schedule calls for an annual increment of $100, as compared with $50, paid under the old schedule.

The previous schedule allowed $50 a year for each year of experience above the beginning salary for any teacher newly employed in the system. In some cases teachers with several years of experience came into the system at maximum salaries. The new schedule allows credit for outside teaching experience up to eight years.

The maximum beginning salary for a bachelor degree teacher with maximum experience is $1850; for a master degree teacher, $1975. The maximum beginning salary for teachers without experience is $1500 for four years of preparation and $1700 for five years. As approved by the board of education, the schedule will become fully effective in 1948-49.

It is an illustration of how a cooperative technic was used by the board of education in solving an executive problem.

A PLAN *for* Selecting *and* Training Junior College Teachers

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THERE is today an ever-increasing emphasis on youth and youth training. The use of our educational institutions by the armed services in the present crisis is an obvious admission that our schools, colleges and universities can do a thorough job of preparation of the necessary technicians and leaders for the war effort. There is every indication that further training will be given former service men and women when this war is over. Where better can this training be given than in the junior college?

It was the emphasis on the training of future citizens which brought the junior college into being and which brings the junior college sharply into the picture now. This type of school is better equipped to direct the attempt of youth to solve its problems than any other of our educational institutions.

The junior college has a philosophy which is distinctly social and it operates in terms of the development of individual abilities and the satisfaction of individual social needs. It is the only division of our system of learning that has successfully broken with our educational traditions. This in itself is a rather remarkable feat when we consider that the administrators and teachers of the junior colleges are themselves products of the traditional schools with little, if any, professional education in the junior college field.

Junior Colleges Nontraditional

The almost phenomenal growth of the junior college since the turn of the century is good evidence that these teachers are doing a worthwhile piece of work. That they could accomplish much more if they had had specific training in this field seems obvious. No one is quicker to acknowledge this need than the junior college teacher himself. He is aware of the many problems in his work for which he has had no adequate training and he has a feeling that most of them would never have occurred had he possessed sufficient training.

With the increase in the number of junior colleges, which will follow the close of the war, and with the continual widening of their curricular offerings, the need for adequate training for teachers in this field is imperative. The almost certain increase in postadolescent and adult education that is to come after the war makes this a matter for immediate consideration.

Four Years of College Required

There is, however, much confusion in the minds of educators with respect to the kind of individual to select for training and the kind of instruction to give him after he is selected. The plan suggested here is but one view of the way in which this can be attempted. It is set up at this time to focus attention on an area in education which has been and is still being neglected. It is based upon the assumption that professional training will not be started until after the completion of four years of collegiate work or its equivalent.

The selection of those for training in the junior college professional curriculum should be preceded by a close scrutiny and critical examination of the life and activities of the prospective trainee. The use of the following criteria in evaluating the information thus obtained is suggested. The information should show evidence of:

1. A broad base of general education and a concentration on one field of subject matter.
2. A wide experience in extracurricular activities.
3. A creative and experimental mind.
4. An understanding of the adolescent, his experience patterns, his problems and his needs.
5. A social point of view and a genuine interest in and sympathy with humanity.
6. Possession of a vigorous personality and qualities of leadership.
7. Work experience.
8. Common sense and a sense of humor.

Adaptations Can Be Made

No attempt is made, in suggesting these criteria, to exhaust the possibilities in this field. The suggestions are purposely general in nature, leaving to the individual training institutions the matter of adapting them to use and their methods of application.

The successful candidate will be given a program of courses in professional education in the following areas, the emphasis being on, and the content material pertinent to, use in the junior college teaching situation. The training program is capable of being adapted to the needs and special abilities of candidates.

This training program will include: (1) educational psychology; (2) methods and principles of college teaching, including observation and practice teaching; (3) philosophy of the junior college; (4) junior college organization, and (5) problems of college teaching.

The plan as outlined is intended for the use of training teachers for the junior college but it could serve as well in training teachers for other youth educational agencies and the lower division of the standard college or university.

As a public relations agency

FATHERS' CLUBS are tops

LEO R. MILLER
Principal, Jefferson School
Kansas City, Mo.

DURING the past few months, a great deal of space in educational journals and magazines has been devoted to attempts to visualize the postwar problems of American school systems and to anticipate their solution. The consensus of these writings appears to be that our schools will be faced with situations varied in nature, intensified by the demands of postwar readjustments and challenging all the ingenuity and resourcefulness of school administrators.

Increasing evidence is shown month by month that educators are aware of the rôle which organized public relations programs will play in helping to solve school problems.

Schoolmen have many agencies at their disposal for maintaining a sympathetic, understanding relationship between the school and the general public, both patrons and non-patrons. The newspapers, radio, exhibits, school personnel, pupils themselves—all are outlets for school publicity. But undoubtedly one of the best is the organized group of school patrons.

Teachers Get to Know Fathers

Now when parent groups are mentioned, the odds are that into most persons' minds will come the concept of the Parent-Teacher Association. The value of this organization's work is real. However, it is primarily an organization of mothers and in many parts of the country its meetings are held during the school day when fathers must miss them. As a result, many teachers and principals may know a fairly large number of the mothers of the families represented in their schools but they probably know few of the fathers.

In the public schools of Kansas City, Mo., there has functioned since 1923 an organization known as the Association of Fathers' Clubs. The first Fathers' Club was sponsored by a woman principal, Mrs. Alva Hamilton, of the Horace Mann School. The idea spread until 25 of the city's elementary schools had similar groups.

Fathers' Clubs' Objectives

Their objectives, as stated in their directories, are:

1. To bring the fathers of America to a greater realization of their responsibilities for the education of their children.
2. To stimulate and maintain their interest in the development of the nation's educational system.
3. To furnish to their members advice, experiences, information, data, instruction and assistance in matters of common interest.
4. To afford a means for the interchange of experiences and information and to promote acquaintance and a fraternal spirit among all.
5. To favor and to strive for the enactment of fair laws and a just administration of such laws.
6. To cooperate with other associations, clubs, agencies and individuals in constructive progress for the advancement of education as conducted under the American system of education.
7. To work for the promotion of any worthy matter of interest for the common good.

Fathers' Clubs are similar to parent-teacher groups but they meet in the school buildings at night, when fathers can attend. The two patrons' groups are complementary, each doing many things for the schools which the other might not do as well. In practically every instance, relations between them have been cooperative and harmonious.

Policy-Making Group Advises Clubs

A central association, composed of delegates from the various clubs, is the policy-making group for the entire city, although no local club is bound by any decision of this central group. It is purely advisory in nature and is supported by a small part of the membership dues of each of the local clubs.

These individual school clubs constitute a unique public relations agency. They provide a fine outlet for the interpretation of the school program to patrons. Before them appear such representatives of the schools' personnel as the superintendent of schools, the various assistant superintendents and others.

The director of visual education talks to clubs, giving demonstrations with pupils in the use of films and slides in the classroom. Representatives of the health and physical education departments explain their contribution to the education of the children and provide demonstrations of games and rhythms, with pupils participating. The head of the school census department explains a new type of report card that is being introduced. School principals and teachers take part in the programs and explain the needs of particular schools. Thus, in the course of a school year, men patrons have many opportunities to learn of the work of the schools for which they pay.

The Fathers' Clubs, through their central organization, have worked for revised school laws and have actively opposed legislation harmful to educational standards in the city and the state. In the school year 1942-43, the association helped carry on a campaign of education for voters, aimed at revising a 1931 statute which was considered unfair to urban school districts in Missouri. At the same time, it carried on a statewide campaign to prevent the adoption of a constitutional amendment which would obviously mean a raid on the state school fund to pro-

vide more money for old-age pensions.

Individually, Fathers' Clubs sponsor boy scout troops and cub packs, providing the personnel for committees and scout leaders in many cases. Neighborhood playgrounds have been provided or obtained by some clubs and the removal of traffic hazards and the providing of adequate safety patrol protection by policemen at dangerous intersections have been the goals of other groups.

In many cases, local clubs have obtained additional pieces of school equipment not provided by the board of education. Among these have been public address systems, encyclopedias, film projectors, auditorium and stage equipment, radios, pianos and duplicating machines.

The foregoing paragraphs provide only a hint of the activities in which the Fathers' Clubs engage. Their field of service in any city or locality will be determined by the type of community, the quality of their leadership and the degree of cooperation they receive from school personnel. Like Parent-Teacher Associations, they are subject to all the frailties of human nature.

To paraphrase Cubberly, one might say, "As is the principal, so is the Fathers' Club." Such an organization has no place in the school where the principal "doesn't want anyone to show him how to run his school." For the schoolman, on the other hand, who wishes to conduct a long-range, continuous program of improving school-community relations, Fathers' Clubs will be a valuable asset.

To argue that a school does not need such a club because it already has a fine P.-T.A. would be as logical as claiming that, since a child has an excellent mother, he doesn't need a father.

Ten Years of Progress *in* San Diego Schools

IN THE last ten years, during which San Diego became a leading war production and military center and a great naval base, the city's schools have taken a place of leadership among the school systems of the nation. Among the major achievements of these ten years are the following:

1. **Regular School Care for Rapidly Increasing Enrollment.** Within the last ten years, the civilian population of San Diego has more than doubled. This growth has brought an increase of 15,000 in the enrollment of pupils in grades 1 to 12. All of these children have been cared for in good schoolhouses, by forward-looking instruction, by practical occupational training and by a guidance program.

2. **Building Program.** Twelve new elementary schools have been established, housing 6519 children. One new junior high school and one junior-senior high school, housing 679 and 1323 pupils, respectively, have been built. Four elementary schools were rebuilt, a school for handicapped children was established and many new wings and new classrooms have been built. This program has been financed by a pay-as-you-build plan as well as by federal money.

3. **New Educational Opportunities.** After a lapse of some years, junior college opportunities once more were offered to pupils in 1934. The San Diego Vocational School was established in 1938. Adult education classes were expanded.

4. **Administrative Reorganization.** The administrative organization of the city schools was studied in 1938 by specialists from two universities. This study was followed by an up-to-date and efficient administrative reorganization. The administrative code of the city schools was revised and handbooks of school policies were distributed to administrators and teachers.

5. **Reorganization of the Board of Education.** To protect the progress recently achieved from sudden and hastily planned reversals, the city charter was revised so that members of the board of education serve for six years on a rotating basis, new members being elected every two years in a 2-2-1 order.

6. **Curriculum Revision and Improvement.** The program of curriculum revision was continued and intensified to meet changing needs. The revised pattern of curriculum development and the new courses of study are being kept flexible. The machinery for change is already working on the new emphasis on the postwar training program.

7. **Personnel Policies and Staff Security.** A personnel department has been established to handle problems incidental to the war. As early as 1937, a revised single salary schedule for all certificated employes was established. This was one of the first single salary schedules in the country. In 1940 a merit system with civil service rules and set salary schedules was established for classified employes (clerks, secretaries, custodians, maintenance men, cafeteria workers). Finally, because of the inadequacy of the state teachers' retirement system and to give some security to the classified employes (not included in the state system), a local retirement system was established.

8. **Fiscal and Budgetary Reorganization.** The procedures of the business division, including budgeting, purchasing, accounting, maintenance and operations, have been improved to a point at which taxpayers have commended the school district on its efficiency and economy.

9. **Guidance and Juvenile Protection.** A program of cooperation with community agencies has been developed to protect juveniles. Vocational guidance opportunities have been made more easily available to high school pupils.

10. **Junior Employment Service and Work Experience.** Since 1938 a junior employment service has been available to pupils. Many attend high school for four hours a day and work for four hours. This program, now used in many parts of the country, was tried in San Diego early in the war period.

These 10 major achievements of the San Diego city schools during a period of unusual growth and change provide evidence that the local school administration is alert to current problems, is forward-looking and able to adjust itself to a program that will best serve the training needs of the community.

Some School Legislation *of* 1944

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THE year 1944 was a light legislative year so far as regular sessions were concerned, only eight states having been scheduled for regular legislative sessions. However, some 28 other states had special legislative sessions, some more than one such session, most of which were devoted, either completely or in great part, to the question of the servicemen's vote. However, even special sessions occasionally adopted some school legislation.

The year 1944 is interesting from the point of view of educational legislation because in it one can discern definite efforts on the part of some states to attempt to peek around the corner of the postwar period, so to speak, and to prepare for the many old and new problems which will be facing their schools when the war ends. In a sense, perhaps, this year's legislation is a preview of some of the legislation we may expect to see enacted by the 44 legislatures meeting in regular session in 1945.

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Curriculum. Michigan adopted a significant law which appropriated $250,000 "for the purpose of providing an experimental program in adult education." The fund so appropriated is to be spent by the state superintendent of public instruction with the consent of the governor and of an educational advisory committee of not more than 15 persons appointed by the governor.[1]

New York's legislature appropriated $20,000 to the state department of education to foster instruction in preflight training, glider flight training, aeroplane flight training and junior aviation. The funds so appropriated are to be used as state aid to reimburse local school districts to the extent of one half the cost of the purchase or rental of equipment, not to exceed the sum of $1000 for any one school district.

The distribution of this state aid is to be subject to rules established by the state department of education determining the scope and other factors of the subjects taught, the period of instruction, the eligibility of pupils, the qualifications of teachers and the fitness of equipment for the purpose. All districts participating in glider or aeroplane flight training are required to provide public liability and property damage insurance in amounts required by the state commissioner of education.[2]

Another New York statute opens up vast vistas of new school developments. This law authorizes school districts, other than New York City, to acquire lands, by purchase or otherwise, for the establishment of school camps for children. Such camps shall be used to furnish education, physical training, recreation and maintenance to all children of school age under the jurisdiction of the board of education, including children attending nonpublic schools. Instruction may also be provided as directed by the school board.

No child may stay free at such camps for a period of longer than two weeks in a year, except that the board of education may allow a longer period for physically handicapped or other children. School boards are required to make reports at the annual district meetings on the administration of this program.[3] There have been strong pressures for school camp development and the availability of suitable sites and plants after the war may speed some sort of school camp program.

Institutes. In the light of widespread discussion of two year post high school institutes and of area schools, a one year experimental program adopted by New York is of special interest. With the approval of the state director of the budget, the state department of education is now authorized to establish two year institutes for both boys and girls. Such institutes may give instruction in arts, crafts, subprofessions and technologies, including agriculture, retail business management and aeronautics. To accomplish the end of establishing such institutes, the state department is authorized to rent necessary quarters, to accept gifts of quarters or to accept federal funds. The authority to establish these two year institutes was specifically limited to one year.[4]

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Pupils. Compulsory school age extensions seem to figure strongly in the legislative picture, a development which (at least insofar as it extends to the school leaving age) has implications of great significance in the postwar employment market, since it takes that many more teen-age children out of the labor supply. Michigan reduced its compulsory school age from 7 to 6 years.[5] Two other states (Louisiana[6] and Virginia[7]) increased their school leaving age from the 15th birthday to the 16th birthday. In the same legislation, Louisiana also increased its

[1]Mich., 1st Special Session, Public Act No. 46.

[2]N. Y., Chap. 432.

[3]N. Y., Chap. 653.

[4]N. Y., Chap. 478.

[5]Mich., 1st Special Session, Public Act No. 35.

[6]La., Act 239.

[7]Va., S.B. 51.

minimum school year from 140 days per year to 180 days per year and established a rather extensive and carefully elaborated system of visiting teachers to enforce the compulsory school law as thus amended and extended.

Mississippi enacted an interesting law which requires teachers to assign "regular lessons" for all pupils beyond the third grade and to permit all pupils to take their books home for home study.[8] Also of interest is a Louisiana enactment which authorizes highway departments to construct, improve, gravel and maintain all school bus routes.[9]

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School Surveys. Perhaps a significant indication of the preparations being made or contemplated to cope with the postwar problems likely to face schools is the fact that three states have established school surveys with a view to studying and making recommendations looking toward improvement of their school systems.

The Michigan public education study commission, appointed by the governor, is a 25 member mixed group, including state senators and representatives as well as leaders from agriculture, commerce, education, industry, labor and women's interests. This commission will report to the 1945 legislature and advocate extensive and fundamental changes in the structure of public education in Michigan. A summary of the recommendations of the commission was published in the April 1944 issue of The Nation's Schools.

Mississippi's legislature established a 13 member commission to investigate the general needs of the school system, including all phases of finances, transportation, teacher personnel, instruction, administration, consolidation and elimination of overlapping agencies. The commission was also authorized to study types of subject matter and curriculums of state schools.[10]

Virginia also established a commission for the study of a system of free public schools, consisting of nine members, and authorized the commission to study subjects taught in the schools, curriculums and methods of establishment thereof, as well as the methods of educating and selecting teachers.[11]

California's survey is especially interesting because it does not establish a separate and distinct school survey commission but instead appropriates money to the state planning authority known as the State Reconstruction and Re-Employment Commission, for the purpose of making a study of the administration, organization and financial support of the public school system.[12] It might be well for educators in general to consider their rôle in the various state and local planning boards that are now being set up throughout the country.

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Teachers. Louisiana's legislature authorized its school boards to make contracts for group life insurance for teachers and to pay the premiums out of public funds. It also authorized the school boards in those instances where part of the premium is to be paid by the teacher to deduct from salary that portion necessary to meet premium costs.[13] South Carolina adopted a constitutional referendum for presentation to the people for popular vote which would allow a teachers' retirement system in that state.[14]

New York's legislature created a new dormitory authority, for state teachers' colleges, consisting of the state commissioner of education, the state comptroller and six members appointed by the board of regents (the state board of education) from among designated state teachers' college interests. The dormitory authority is authorized to construct and maintain dormitories for state teachers' colleges and to issue bonds therefor. After each dormitory is paid off in full, jurisdiction over the dormitory passes from the dormitory authority to the State of New York, subject to the rules of the board of regents.[15]

[8]Miss., H.B. 436.
[9]La., Act. No. 264.
[10]Miss., Sen. Conc., Res. No. 15.
[11]Va., S.J.R. No. 11.
[12]Calif., 4th Spec. Session, Chap. 36.
[13]La., Act 184.
[14]S. C., Governor's Act No. 690.
[15]N. Y., Chap. 524.

Youth Must Face Facts

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SCHOOLMEN know that practically all returning veterans will, if they so desire, be in a position to obtain the benefits of further education under the new G.I. Bill of Rights legislation. These benefits will range from the high school level upward.

Fort Kent pupils this fall will be told directly, without any reservations, what effect this legislation will have on their futures. Competition in the postwar world will be keen. The question "Do you want a job?" will be superseded by "What qualifications do you have to offer for a job?"

Educational benefits to veterans will add immensely to the field of competition; therefore, a high school diploma must be obtained in order to be at least "in the running." The time is not too distant when more than a high school diploma will be needed and demanded. Each and every pupil will need retrospection so as to review points of strength and weakness. This will limit the sphere of emphasis.

Education will be, as it should be, self-education. Teachers are merely guides and counselors. Pupils can be led to the Fountain of Wisdom but they cannot be forced to drink. Youth must awaken to its responsibilities. Youth must arouse itself out of the lethargy wherein it found refuge during the past turbulent years.

We must stop pampering our boys and girls. Clear-cut facts must be shown to them and their implications pointed out. Truth, with all its harshness, is not to be avoided.

The G.I. Bill of Rights will have a powerful influence over and above the excellent benefits which will emanate from it. Let's use it to show our youth the folly of the past few years.

OUR HOLLYWOOD HERITAGE

colors pupil reactions to educational films. The "entertainment" habit is an obstacle to their effective use in the classroom . . .

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WHY do adults attend motion pictures by the tens of millions each month? Why are we so enthusiastic about pushing our half dollars through the ticket window for the privilege of watching fiction, biography, current events and news paraded before us in a series of flickering shadows of light and shade? Is it because of our love of adventure, our inherent wish to escape from the realities which so ruthlessly press in on us?

Why We Like Hollywood Films

Perhaps we do so for the same reason that we like to read comic strips. The psychologist says we love "the comics" because reading them gives us an opportunity for self-aggrandizement as we survey with a critical eye the ridiculous antics of the comic strip characters. Or we may secretly identify ourselves with the romantic accomplishments of the heroes. Similarly, entertainment films give us an opportunity for release, for identifying ourselves with heroic action and adventure, for escaping from care through our association for a few brief hours with the dreams, unfulfilled ambitions and heroic flights of fancy of film heroes and heroines.

That adults are not the only ones addicted to the entertainment film is evidenced conclusively by studies sponsored by the Payne Fund in the early 1930's and substantiated again and again since that time by psychiatrists, doctors, social workers.

Thus it is that the entertainment film has made a lasting impression upon the conscious and subconscious thinking of some 130,000,000 Americans. Thus it is, also, that the school child finds himself tremendously influenced by his associations in the world of the entertainment film; and so it follows that, when the sound film is used in educational or classroom work, the heritage of Hollywood, this tremendous body of impressions built up through association with the romantic fantasy of the films leaves its indelible mark on children's attitudes toward films in any form.

It is not strange that when the announcement that a moving picture is to be shown is made to children, whether they are in the primary, intermediate, junior or senior high school grades, the reaction is often: "Hurray! We're having a movie!" or "A movie! Swell! Who's in it?"

What! No Technicolor?

But imagine their chagrin and shock when they find that instead of a technicolor picture filled with adventure and dazzling heroines, an eight minute black-and-white sound film on "City Water Systems" or some allied text film subject is presented to them. In many cases the teacher, too, is under the spell of the Hollywood heritage, not that there is anything wrong with it in itself but its influence upon children is a factor to be reckoned with in attempting to teach them by means of nonentertainment films.

Let's see how this influence may operate in a classroom where an educational film is introduced. When the child realizes that instead of a Western thriller he is to see a film in which heroes and heroines are absent, he is likely to experience feelings ranging from boredom to resentment at being "let down." If he should be tested afterwards on what he has seen, his reaction may be even more marked. In short, the teacher is confronted by the typical child who has grown up under the impression that movies mean entertainment, relaxation, freedom from work or a Saturday afternoon at the downtown theater.

New Attitude Must Be Cultivated

To this child it makes little or no difference at first that the true educational sound film or text film is a vitalized experience in learning, in learning which has heretofore been limited and often inhibited by the inflexible format of texts or supplementary books. It makes no difference to this child that before his eyes 24 frames of pictures are being reviewed each second, that 1440 of these frames are blending themselves each minute to make up the motion he witnesses. He may little realize that, through the medium of the 14,400 separate pictures which have been paraded before him during a ten minute sound picture, the doors of a geography book are being opened wider than would otherwise be possible and new vistas are being released upon his consciousness in all their authenticity, in all their reality, with all their environmental sounds, as pictures of actual life in the far-off Congo, on the steppes of Russia or on the rocky, wind-swept shores of the Aleutians are shown.

From my own experience, I can attest to the existence of a great obstacle that has to be overcome in at-

tempting to change the child's habit of considering films as pure entertainment to that of recognizing them as a means for acquiring knowledge and information. During the last year we obtained in Madison a projector, good films and specific text-film subjects which were curricularly valid for the course of study being pursued. The films did a clear and vivid job of explaining scientific laws and concepts which are often confusing to children.

They were announced, shown, discussed, reshown and then followed by an evaluation in the form of a prepared 50 item objective test. Several children were noticeably bored and a few were actively disinterested. I chose one boy, who was known for his honest and uninhibited appraisal of things about school, and we talked over this business of really working at films instead of being "just entertained." The picture was entitled "Simple Machines." The conversation went something like this:

"How did you like the film, Jerry?"

"Oh, it was all right."

"Just all right?"

"Well, the picture was sort of interesting but I don't see why we have to take a test on it—never did before."

"I'm interested in the first part of your statement, Jerry, that the picture was 'sort of interesting.' What do you mean?"

"You could see things real clear, you could see just what was happening."

"You mean, Jerry, that you could see the lever in operation, the pulleys actually doing work or the inclined plane as it's used in modern machines?"

"Yes, that's what was good—never quite caught on to it before. The picture showed me that. But why did we have to spoil it with a test?"

"Well, Jerry, suppose you think back about how you studied rocks and fossils in science. How did you learn about those things?"

"Oh, we talked about them. Our teacher told us about them and we read."

"What did you read, Jerry?"

"I read one of those little booklets we just got and then the chapter in the book and some things at the library and. . . ."

"Yes, Jerry, and did you by any chance take any tests on the information you had read over or talked about?"

"Sure, we always do. At the end of every unit we always take a test and those who get it right are O.K., and those who don't—well, they have to get busy and do some more work."

"Yes, you read about it, discussed it and took tests on it. Now answer this fairly, Jerry. If you had your choice between learning about simple machines by reading about them, then talking about them and being tested and learning about these same machines by watching the film you just saw, talking about it and then being tested, which would you prefer?"

"Why, seeing the movie, of course! Oh! . . . I guess I get what you mean."

So Jerry got it and so will more and more children. Increasingly, though slowly at first, children begin to see the tremendous advantage of learning by seeing and listening to well-prepared, authentic, pedagogically correct sound films even though testing, which at first seems so foreign to the motion picture environment, is a part of the process. It must be remembered, however, that even though the educational sound film at first seems to be an unusual innovation in the classroom situation, yet basic teaching methods still apply and may be used effectively. The preview or overview of the subject in anticipation of its showing, the actual showing, discussion and testing become just as valid a cycle of method for use with the educational sound film as they are with traditional materials.

The battle to overcome our Hollywood heritage will be a long one. Teachers must not become discouraged by initial pupil reaction but should hold steadfastly to the realization that the educational sound film is an "open-sesame" to a more complete and sure comprehension of processes and social situations which depend upon motion and environmental sound to be understood.

They must plunge doggedly through this ebb tide of interest, which typifies many pupils' first reactions to text films, secure in the knowledge that slowly but certainly the children will recognize the true educational sound film as the most worth-while supplement to good classroom procedure that has appeared since the turn of the century. Out of it will come the realization that the educational sound film, although it may be a hard taskmaster, can overcome the Hollywood heritage and take its rightful place as a modern tool of learning.

Safeguard Veterans' Education

IN THE so-called G. I. Bill of Rights, under which returning veterans are assured a chance to complete their education or improve their educational status, there is considerable opportunity for the states to maintain control of this activity provided they are willing to accept the responsibility.

As the law stands, the governors of the respective states are required to submit lists of approved and accredited college, elementary, secondary and various types of vocational schools. The following seven points are suggested for states in establishing plans and procedures under this bill:

1. The state should immediately set up machinery to guarantee that the veterans will receive adequate training for the money they receive from the federal grant.

2. Approved institutions should be those which are fully capable of providing an adequate program of counseling.

3. Approved institutions should have a well-trained and competent faculty.

4. Library facilities should be adequate for the courses offered and the number trained.

5. General equipment should be adequate for the courses offered and the number trained.

6. Provision should be made for students who show aptitude but lack prerequisite courses.

7. Adequate visitation committees should be provided for institutions not on regionally accredited lists.

Buses for Negro Children

a problem in the South

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THE FUTURE of the Negro rural schools in North Carolina depends largely upon the rapidity with which adequate transportation and large unit facilities are furnished. These two improvements would bring about more regular attendance and better instruction than are now possible and would eventually pay rich dividends to North Carolina in the form of an increased number of law-abiding and useful citizens having a greater appreciation for the better things of life, and an increase in the number of self-supporting men and women.

The purpose of this article is to present a picture of the present status of the transportation situation in the Negro rural schools of North Carolina, showing the progress that has been made in providing bus facilities for boys and girls attending them.

In North Carolina the initial bus for the transportation of children is purchased by the local administrative unit. All new buses thus purchased are then transferred to the state whose responsibility it is to operate and maintain them. When they are judged to be inadequate, they are replaced by new buses purchased with state funds.

According to the latest available data,[1] North Carolina transports more children to and from public schools than does any other state in the country, which indicates that public school transportation is a definite and integral part of the state's educational system. During the school year 1941-42, a total of 4823 buses was operated, traveling 169,412 miles each school day and transporting 344,648 pupils.

[1]State School Commission Report, 1940-41, 1941-42, p. 35.

The transportation of Negro school children had its real beginning in 1929 when the Julius Rosenwald Fund began to assist the counties in the purchase, operation and maintenance of buses for Negro boys and girls. However, records in the state department of public instruction show that in 1926-27 the sum of $9130.76 was used from state funds to transport Negro children. Prior to this time there were some transportation facilities for Negroes but they were limited and were provided by a relatively small number of counties.

From 1929 to 1932 the Rosenwald Fund granted aid in the amount of $36,334.74 to 23 North Carolina counties for the purchase, operation and maintenance of buses for Negro children. This made possible the transportation of 5722 children during these years. The Rosenwald Fund's action tended to stimulate local administrative units to contribute more to the purchase of buses for Negro school children than they had made available for this purpose heretofore.

Data[2] with respect to the growth of bus facilities for Negro children in North Carolina appear in the table. The table shows that there has been a constant increase in the number of buses for the transportation of Negro children from 1935 to 1942, the total increase during these years amounting to 416, or 140 per cent. There was an increase of 36,257, or 388 per cent, in the number of Negro children carried to and from school.

[2]Data taken from Report of the State School Commission, 1940-41 and 1941-42, p. 10.

The progress that North Carolina has made in attempting to furnish adequate bus service for Negro school children is commendable. Nevertheless, there is much to be done when it is considered that in 1940-41 there were 4078 buses for white children and only 626 for Negroes.

During the year 1939-40 in the rural schools of North Carolina, there were 411,055 white children in average daily attendance. Of this number, 297,357, or 72.32 per cent, were transported to and from school. Of the 160,107 Negro rural children in average daily attendance, only 36,204, or 22.61 per cent, were transported. These data give further evidence of the need for more adequate bus service for taking Negro boys

Growth of Negro Transportation Facilities, 1935 to 1942

Year	*Number of Buses*	*Increase in Number of Buses*	*Number of Children Transported*
1935-36	282		9,326
1936-37	365	83	18,855
1937-38	428	63	25,271
1938-39	495	67	30,812
1939-40	561	66	36,204
1940-41	626	65	42,733
1941-42	698	72	45,583

and girls to school in North Carolina.

The chief problem the Negro rural communities face is the difficulty of getting local administrative units to purchase the initial buses. The state, under present school laws, cannot assume its responsibility until the administrative units take the initiative. In some localities Negro citizens have assumed the responsibility of the local administrative units and have purchased buses with their personal funds. The buses were then given to the counties with instructions that they be transferred to the state.

This procedure has often been the beginning of a more definite interest in the transportation of Negro children on the part of many counties in North Carolina. However, under present laws, the only adequate solution to the problem is for the local administrative units to assume their full responsibility with respect to the purchase of initial buses.

In conclusion, it may be said that most of the rural schools for white children in North Carolina have been consolidated and provided with adequate bus facilities and that the opposite is true with respect to Negro rural schools. Although progress has been made in the furnishing of buses and in the creation of larger school units for Negro rural children, there are, nevertheless, in North Carolina 1398 one, two and three teacher schools which should be consolidated.

College Executives Go to School

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American Council on Education

A TEN day school for college executives was held in August at Jackson's Mill, W. Va., the boyhood home of "Stonewall" Jackson and now the site of a recreational camp. This was the second venture in a series planned by and for the presidents of teachers' colleges. The first was held at Clear Lake, Mich., in 1942. Each was conducted under the joint auspices of the American Association of Teachers Colleges and the American Council's Commission on Teacher Education.

Since the commission's field activities and its drafting of reports are about completed, the school was designed to make full use of the experiences of the field staff and to introduce the published and forthcoming volumes. These purposes were accomplished through formal presentations at the general sessions and through informal contributions to the smaller study groups.

Six staff members and four members of the commission served as consultants to study groups and made informal interpretations of the field experiences and general findings of the study during the course of the school. Other members of the commission were present for two and three days. In addition, representatives of some cooperating centers in the commission's program were present, outside of the seven teachers' colleges taking part in the study. These persons added their own interpretations of teacher education problems as revealed through their experiences in the college and school enterprises which were sponsored by the study.

Presidents, deans and staff representatives of the institutions belonging to the American Association of Teachers Colleges made up the largest single group among the 193 persons present. There were 76 presidents, 38 deans and directors and 10 faculty representatives. These came from 107 colleges and 38 states. Fourteen high school principals and 12 public school executives helped contribute the employer's point of view to the group discussions. Six state directors of teacher education and an equal number of field workers from national associations interested in teacher education helped also to leaven the discussions and throw light on teacher training problems.

Each member of the school chose a topic of major interest from a list of 18 having to do with (1) staff organization and development; (2) curriculum improvement; (3) emphases needing attention at this time; (4) community relations, and (5) counseling and recruitment.

First choices were used to determine the make-up of each discussion section for the first week. At the opening of the second week each participant had the choice of continuing with his group or of joining one of the others. In all, some 16 topics were explored, of which the following are typical:

Staff organization and development with reference to educational services; divisional organization *vs.* all-faculty organization; place and function of departments; closer articulation of subject matter and professional staffs; specialization in the professional staff.

Over-all pattern for the work and curriculums of a teachers' college; weight to be given to geographical and regional factors in its determination; weight to be given to crystallizing and fusing the views and values of staff members; possible gains through nationwide cooperation to clarify functions; experiences in formulating all-institutional objectives, such as profit in the light of the time involved, shortcomings and technics.

How to provide counseling service to meet both the general needs and the vocational objectives of returning students and special groups.

Mornings were devoted to the discussion section, afternoons to recreation and to the discussion of unscheduled topics, evenings to lectures, special reports and forums and to matters of consuming interest, such as the administration of veterans' education.

Among the unscheduled topics the possible plight of high school graduates in the job competition of the postwar years received the most attention. A group of 60 conference members helped prepare a document presenting the situation—but not the remedy—for the use of forum speakers, lay and professional organizations and the like. It was hoped that from wider discussion of this situation, interest in which is now relatively dormant, plans for practical action might develop.

State University Makes Films

and teaches schools how best to use them

BRUCE E. MAHAN

Director of the Extension Division
State University of Iowa

LONG aware of the educational potentialities of teaching films as a dynamic classroom tool, the bureau of visual instruction of the University of Iowa extension division is engaged in putting motion pictures to work in classrooms, factories, shops, clubrooms, churches—in short, wherever the teacher-pupil relationship exists.

Functioning primarily as a visual aids lending library when 16 mm. films and projection equipment first became available, the bureau rapidly became a key center for the distribution of 16 mm. teaching films on the campus and throughout the state. For the fiscal year July 1, 1943, to June 30, 1944, the bureau distributed a total of 10,647 reels in 42,588 showings to an estimated audience of 4,258,850 persons.

The film library of the bureau now contains approximately 3000 reels on some 1500 subjects. New films and duplicate prints are added regularly, some 200 new films having been obtained since Jan. 1, 1944.

A corner of the film library.

BUREAU FILMS

Production of teaching films by the bureau has enjoyed a similar growth. Seven University of Iowa departments have sponsored and directed bureau teaching films and a postwar production program has been prepared which includes nearly every department on the campus.

The Iowa Child Welfare Research Station was among the first units on the campus to take advantage of the unique ability of motion pictures to present abstract situations in a forceful and meaningful way. For example, "Preschool Adventures," a forty minute color film, brings out the age difference in children's interest in taking responsibility for themselves, in their ability to apply themselves in learning to manipulate play material and play together.

Two fourteen minute color films, "Your Child's Dental Health" and "Let's Talk About Teeth," organized and directed by the University of Iowa bureau of dental hygiene, have been produced. The first, directed to parents, illustrates the importance of proper dental care to the child and shows what parents can do to help provide such care. The second film, for children, makes the possession of good teeth an attractive goal and explains in simple terms what the young child can do to keep his mouth healthy.

The need for a film to illustrate differences between good and bad posture resulted in the production of "Posture for Poise," a twenty minute film, under the direction of the department of physical education for women. The film illustrates good and bad posture in many ordinary situations and shows how good posture may be developed.

The department of physical education for men has made excellent use of motion picture technics to teach sports skills. Films of major football games are made by the bureau, many of them in color. "Fit to Live and Fit to Fight," a fifty minute film, has been made in cooperation with the departments of physical education both for women and for men, and the state department of public instruction. This picture shows the war-time physical education program in 13 Iowa high schools.

"Principles of the Art and Science of Teaching," a fifty-five minute film, was produced under the direction of the college of education. The film illustrates three basic principles in teaching.

Three twenty minute motion and time study films with descriptive sound tracks have been produced by the bureau under the direction of the department of industrial engineering. These are entitled "Motion Study Principles," "Motion Study Applications" and "Motion Study in Action." These films supplement a list of forty 16 mm. silent motion and time study films acquired by the industrial engineering department and distributed by the bureau. Widely used in shops and factories throughout the nation, these films have made a definite contribution to the speeding up of war-time production.

"The Right to Hear," a thirty minute 16 mm. sound film in color, sponsored by the department of otolaryngology of the college of medi-

cine, has been produced and is distributed by the bureau of visual instruction. The film illustrates how hearing impairment can be detected and measured and what steps can be taken to alleviate its effects. Various types of hearing loss are described and the classroom procedure of making tests is illustrated. The final scenes show the type of training given to persons with acute hearing loss at the Iowa School for the Deaf.

Information films about the university range from the classroom to the football field for their material. "Highlights of Iowa," a forty minute color film, shows typical scenes of the university. A 16 mm. film in color and sound of historic, scenic, rural and industrial Iowa is in preparation as well as a motion picture of the U. S. Navy Pre-Flight School and the Army training program on the campus.

BUREAU FACILITIES

Production of films on this scale requires a variety of accessories. All film equipment is 16 mm. It includes several silent cameras of various makes and a double sound camera for use with sound recorder. Sound films are edited on a sound editor. Current for flood and spot lights is provided by a portable switchboard which can be connected directly to electrical mains. Facilities for making special sets are provided by the university theater workshop.

For film maintenance and projection the bureau is equipped with a film storage room, up-to-date inspection and shipping units, a fully equipped projection studio large enough to accommodate university classes as well as portable projectors.

Plans have been drawn for a postwar educational film production and distribution center at the university to be equipped with the best in technical facilities and large enough to handle the postwar expansion program. This plant will be used also for other types of visual aids for classroom use.

SERVICE TO SCHOOLS

Staff members of the bureau of visual instruction at the University of Iowa are available at all times to assist school administrators and teachers in setting up a program of visual instruction and selecting suitable films and other visual aids. Arrangements may be made for previewing films in the bureau's projection studio.

A workshop training program in the proper use of visual instruction equipment, films, slides, film strips and other visual aids is offered yearly in connection with the university's summer session when university faculty members, who have used films successfully, give demonstrations.

STATE CONFERENCES

Believing that instruction in the use of visual aids can be presented most effectively in the schools themselves, staff members of the bureau have planned a series of state conferences.

The first of the series, held in five Iowa cities along the Mississippi River last March, proved that school administrators and teachers are interested in such a program. Four hundred attended the conference at Burlington, 150 at Muscatine, 600 at Davenport and 250 each at Clinton and Dubuque.

On the staff for these conferences were Roger Albright, director of distribution, Teaching Film Custodians Inc., New York City; A. J. McClelland, district manager, Erpi Classroom Films Inc., Chicago; Mary E. Windle, demonstration teacher, Erpi Classroom Films Inc.; John R. Hedges, acting director of visual instruction, S.U.I. extension division; Bruce E. Mahan, director, S.U.I. extension division, and E. T. Peterson, acting dean, S.U.I. college of education.

Sessions, beginning at 4:30 p.m. and continuing until 9:30 p.m., were held in the high school auditorium in each city. School officials made all local arrangements, including notification of school executives and teachers in near-by communities. Representatives of the press and of Parent-Teacher Associations were invited to attend the conferences. There was widespread newspaper coverage of the event in each city.

At each city, a group of 15 boys and girls from the fifth or sixth grade of an elementary school served as the class for Mary E. Windle's demonstration of the classroom use of a 16 mm. sound film. As it was necessary to seat the boys and girls on the auditorium stage so that both they and the audience could see the picture, a public address system was used to make their responses audible. However, "playing radio," as their teacher called it, added to the effectiveness of the demonstration.

One or more similar trips throughout Iowa will be made this fall, another next spring and so on.

A corner of the bureau's mailing room. Films are checked carefully before mailing and upon their return. Some are handled 60 times a school year.

A screen test is made prior to shooting a picture. Lee Cochran, bureau director, is behind the camera; Vernon E. Putnam operates the sound equipment.

The Vernier Scale is practically a complete course in the use of this basic tool. USOE sound film available for rental or sale from Filmosound Library.

Speedy LEARNING IS VITAL NOW!

TO HELP you *teach more* . . . to help students *learn more—faster,* the U. S. Office of Education has sponsored the production of hundreds of skill-training motion pictures. Carefully planned, minutely detailed films on machine shop practice, shipbuilding, aircraft, optical craftsmanship, welding, electricity, radio, and many others are now ready to help you and your students.

You can rent or buy any of them from the B&H Filmosound Library. To encourage the building of school film libraries, rental charges are rebated if films are bought within 30 days after rental.

With few exceptions, these are *sound* films, giving trainees the dual impact of sight and commentary. You add immeasurably to their effectiveness when you show them with a B&H Filmosound Projector. Brilliant, rock-steady screen image plus clear, clean sound reproduction at any volume level give Filmosound projected movies a *professional* quality that's unsurpassed.

Complete film protection and other features of Filmosound's famed design simplicity mean freedom from annoying program interruptions.

If your school *has* Filmosound, help keep it in use on vital teaching problems. If you *don't* have a Filmosound Projector, remember that schools giving war instruction are given priority on Filmosound equipment. Coupon will bring information.

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Let's Look *for* Trouble

ARTHUR J. HILLARY
Acting Curator and Custodian Engineer
Brooklyn College, Brooklyn, N. Y.

THE day the Japanese made the sneak attack on Pearl Harbor marked the beginning of a period of scarcities in custodial materials, tools and equipment for all plants not directly connected with the war effort. The immediate needs of our vast war machines caused priority ratings to be clamped with bewildering rapidity on all materials, tools and equipment so essential for custodial and maintenance work. We were left high and dry with whatever supplies we were fortunate enough to have on hand. Conservation of these articles became the prime objective of all persons in charge of plant maintenance and operation.

Custodian's Tools and Equipment

Included in the category of maintenance and custodial tools and equipment are boilers, pumps, ventilating and air-conditioning units, motors, electrical devices, as well as all of the tools used by carpenters, plumbers, steam fitters, electricians, machinists, masons, painters, gardeners and cleaners. To care for these numerous items is the most important responsibility of all supervisors of both maintenance and custodial workers.

It is not enough simply to tell the users of the tools that they must be careful. Time must be devoted to giving workers intelligent instruction on their use and care. It should be explained that well-kept tools and equipment make custodial tasks lighter and the fact should be stressed that replacements are not to be had until the war is over.

When a worker, through carelessness, has caused a piece of equipment to be sent to the shop for repairs, he should be required to perform his work without the aid of mechanical equipment, even though the work be made harder and the time required to perform it be made longer. When a worker is thus inconvenienced, he will remember and take better care of his equipment.

One of the big problems in the care of tools and equipment is loss. Loss is usually the result of carelessness on the part of the worker or the lack of an efficient checking system and storage facilities on the part of management. Whenever possible, tools and equipment should be neatly racked on tool boards with light-colored backgrounds. Each tool should have its regular place on the tool board so that the storekeeper or person in charge can see at a glance when a tool is missing. All tools should be checked out at the beginning of a shift and checked in again at the end so that missing tools can be traced and defective ones repaired. In the case of small tools, such as screw drivers, wrenches and pliers, which are used daily by many of the workers, efficiency and time are gained by issuing and charging to each worker a kit of these tools.

When Tools Can't Be Racked

Tools and equipment that cannot be racked conveniently on tool boards should be stored neatly in regularly designated places which are plainly visible and easily kept clean. Equipment that must be stored outside should be painted and greased thoroughly to prevent decay and corrosion. Never pile tools one on top of the other in dark and dirty chests or drawers where they will always be hard to find and hard to check for defects or loss.

We all know that a little oil makes things run smoother. Yet, despite the almost universal knowledge of this fact, more tools and equipment are ruined through the lack of oil than through any other cause. How many times have we paid for repairs to vacuum cleaners, electric fans, parts of automobiles, electric refrigerators and lawn mowers because we have neglected to oil them! How often have we looked for that bright new saw or chisel that we put away a few months ago only to find it covered with rust because we did not take a few minutes of our time to grease it!

Carelessness, laziness and forgetfulness are about the only reasons for damage resulting from lack of lubrication to either tools or equipment.

Lubrication Essential

To prevent the ruination of irreplaceable equipment every person in charge of such equipment should insist that it be lubricated before being used and regularly while in use. Equipment with an automatic oiling system should be checked before using to see if oil reservoirs or grease cups are filled. It should be inspected regularly while in operation to see that the automatic system is working. Automatic oiling systems are just as likely to fail as is the careless worker.

Do not economize on oil cans. They are inexpensive and are invaluable when needed. Oil cans should be kept filled and handy at every place where tools and equipment are used or stored. Many pieces of equipment have been damaged and laid up for repairs because the user thought that they would run just a little while longer without oil, said thought having been induced by the fact that there did not happen to be an oil can handy when needed.

The practical application of the old adage, "An ounce of prevention is worth a pound of cure," is the reason thousands of plants, not connected with the war effort, are in operation today. Preventive maintenance is our "ounce of prevention" and is simply

SOMEONE'S BEEN USING SUN RAY STEEL WOOL

Whether it's banisters or floors—furniture or woodwork —whether it's wood, metal, pottery, or other material— you get a "mighty smooth" surface easily and quickly with Sun Ray Steel Wool.

Today, despite decreased help, Sun Ray Woolers are keeping a gloss on millions of square feet of office, hospital, and institution flooring. Sun Ray Steel Wool is made to give each strand the proper "bite" — and these strands are scientifically arranged.

Craftsmen prefer Sun Ray Layer Built pads because they are economical, handy to work with and give perfect results on curves and "hard to get at" surfaces.

Sun Ray Layer Built Pads are now available. They are made from long strands of precision-cut steel wool. When one layer becomes worn, the pad is folded back, exposing a fresh, new surface.

Greater safety, greater beauty and more efficient operation. These are the benefits the Sun Ray Floor Machine Woolers have contributed to the maintenance job. Easy to apply, Sun Ray Woolers may be used effectively with any disc type floor machine to clean, dry scrub and polish in a ***single operation,*** any waxed floor surface.

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another way of saying, "looking for trouble," with the difference that we look for trouble in order that we may prevent it.

Examine equipment while it is in operation. Listen for any unusual noises; notice whether you detect the odor of burning oil or insulation; feel the moving parts regularly to see whether there is any unusual increase in the heat of such parts. When any of these signs is evident, it is an indication that trouble is ahead. The equipment showing such signs should be stopped immediately and the cause of the trouble investigated and remedied. Moving equipment should be checked regularly for loose nuts, screws, bolts, cotter pins and excess clearances in its moving parts. Care of this kind will keep equipment in good operating condition indefinitely.

Watch for Heat Leaks

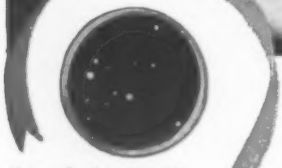
Examine boilers regularly for steam leaks, air leaks, pitting and corrosion. Repair the leaks and remove the causes of pitting and corrosion. Repair pipe line leaks immediately to avoid loss of pipe contents as well as to protect equipment in the vicinity of leaks. Keep all valves and pump rods well packed and valves ground in to a tight seat. Keep door checks in good operating condition so that doors will close quickly and quietly to prevent loss of heat from buildings during the cold months of winter when fuel is likely to be scarce.

Keep all metal and woodwork well painted not only for appearances but to prevent corrosion and decay. Repair shades as soon as a slight rip appears so as to prevent total loss of shade fabric. Take particular care of your paint brushes and all other brushes made of bristles. Never stand a brush on its bristles. Good bristle brushes are no longer available. Inspect your buildings regularly for defective tools and equipment. Defective equipment causes accidents which result in loss of manpower and this is just as scarce as are tools and equipment.

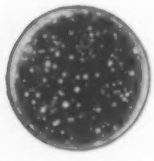
The dearth of tools and equipment has taught management as well as those in charge of maintenance the value of tool and equipment conservation. Jointly they have learned that with proper care of tools, replacement costs can be cut more than they had ever dared to expect. Their attention has been drawn to the advantage of quality purchasing over price purchasing by the fact that quality tools, with efficient care, are giving as good service today as they did when new.

Let us not forget the lessons we have learned during these war years and, when price competition again becomes keen in the postwar period, let us remember that it was the quality tools and equipment that enabled us to carry on when replacements were not to be had.

AMAZING FACT No. 1 ABOUT M-D DUSTLESS BRUSH ...



Bacteria developed on a culture plate after sweeping with a "Dustless" brush.



Germ colonies developed on a culture plate after sweeping with an ordinary brush.

Scientific tests conducted by independent health authorities have proved conclusively that this self-moistening Dustless brush eliminates "more than 97 per cent of the dust from the air as compared with ordinary brushes". At the left are photographic illustrations of two culture plates which graphically show this great difference.

Other exclusive features: No sweeping compound necessary. Metal reservoir in back is filled with kerosene, or Arbitrin, a special sweeping fluid. As the brush sweeps it makes the best kind of sweeping compound out of dust it contacts. The Dustless brush also sweeps faster, saves floors, and lengthens the time between scrubbing, mopping and bleaching. It is built to outlast ordinary brushes two to one. . . . There is a self-moistening Dustless brush for every kind of floor. For further facts and prices write direct to factory: Milwaukee Dustless Brush Company, 528 N. 22nd Street, Milwaukee, 3, Wisconsin.

Write Milwaukee Dustless BRUSH COMPANY

BETTER PLANT PRACTICES

Introducing the "Denskodian"

HAVE you seen the *Denskodian*, the monthly bulletin issued by the Association of Denver Public School Custodians? If not, the next best thing is to have editor J. C. Stoy tell about it. By way of preliminary explanation, we might state that it is the official organ of the association and carries items of informational value

CEMENT FLOORS
BLEACHED AS THEY ARE
CLEANED AND SANITIZED
Cleans with a non-injurious bleaching action. Easy to use... Free rinsing.
Eliminates scrubbing or scraping of floors. Penetrates deep into cracks and surface pores.

Turco Aktiv Does These *Three* Important Jobs in *One Simple Operation*

Turco modern chemistry has produced in Aktiv a specialized cement floor cleaner that is exceptionally effective. Not only does it speedily and thoroughly emulsify grease and oil, it penetrates deep into cracks and surface pores, ordinarily uncleanable. The dirt comes to the surface where cold water will flush it away without trace. But that's not all: Turco Aktiv also sanitizes as it cleans, whitens cement with a non-injurious bleaching action.

A granular material, Aktiv is safe and pleasant to use at all times. As it dissolves completely in water, it may be made into a stock solution for use as needed. Or sprinkle it on a wet floor and, in a few minutes, lightly work into cracks and rough spots with broom or brush, hose off or mop with clear water. Hard scrubbing or scraping is eliminated. *Aktivating* cement floors is very inexpensive. Let the Turco Field Service Man show you. Write today.

Other Specialized Turco Products for Institutional Maintenance

Blu-Fax, for light duty cleaning of floors, walls, and factory equipment.

Lustrite, for safely cleaning linoleum, composition and rubber tile.

Tile-O, for bleaching ceramic tile, terrazzo, porcelain. Removes rust stains and hard water spots in washrooms.

Glyst, for cleaning windows and other glass. It is not oily; leaves no film.

Turco-Pine, a high concentrate pine oil disinfectant. Long-lasting. Demonstrated germicidal qualities.

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on plant operation and maintenance, as well as items of social interest to its members. And now we will introduce Mr. Stoy.

"This little four page bulletin is in its twelfth year of publication. It was started at the suggestion of a president of the association, who at that time was a junior high school custodian. He was discussing his plans for the year's program of monthly meetings with his helper. The idea occurred to them that a bulletin setting forth the educational and social program of the group from month to month would be of value to the members and would probably create more interest in these functions if they were informed of them in advance.

"At first the bulletin was made up of news items contributed by members of the association and gathered by reporters and educational articles contributed by members of the supervisory staff of the business office. The reporters would meet with the editor one or two evenings in the month and form the paper. The English department of the junior high school would edit and make corrections and the printing department of the same high school would print the bulletin.

"During the first summer recess the bulletin was brought into the business office for editing since the high school was closed and the association desired to have the paper issued during the summer months. Since that time the bulletin has been made up, mimeographed and mailed from the business office. The school board has assumed all expense of publication and mailing, the business office furnishes the services of a typist and the bulletin receives the same consideration as other educational publications issued by other organizations of the district from the school authorities.

"For the first two years the make-up was entirely in the hands of the membership of the association. Nine years ago I was employed by the district as supervisor of custodians and elected by the association to serve as an adviser to the editorial staff. The next year I became editor and have served in that capacity ever since.

"Prior to Pearl Harbor there were many articles contributed to the bulletin by the membership on subjects of interest to the group. If one found a better or easier way to perform a cleaning or maintenance operation, he would write a short article, or give the facts to the editor, and it was published for the information of the group. If an employe was doing an unusually good piece of work as an aid to the educational program or was serving his community in an outstanding way, recognition was given in the form of a news write-up.

"Since Pearl Harbor our personnel has changed so much and so often that the editor has had to write and publish the bulletin almost in its entirety. Much of the news is gathered as he makes his rounds of the school plants during the discharge of his regular supervisory duties.

"The mailing list is made up of all members of the operation and maintenance departments, retired employes, members in the armed services who now number 45, school board and administrative officers of the Denver public schools, custodial organizations elsewhere, former superintendents of the Denver public schools and friends interested in the operation and maintenance of school plants.

"The bulletin goes to every battle front in the world except India and China and it will go there if, and when, a member of our group is called to serve in that theater.

"I feel that this little bulletin has contributed much to the high degree of loyalty and proficiency we enjoy in our maintenance and operational personnel. Its value as a tie between the fellows in service and the activities of the district is immeasurable."

Speed up

THE CLEANING OF SCHOOLROOM FLOORS

Penetrating Seal-O-San locks out dirt
Seals germ-packed cracks and crevices

WITH the shortage of maintenance help increasing, smart school executives are turning to Penetrating Seal-O-San to eliminate the labor required for the constant scrubbing of floors.

They know that a floor finished with Seal-O-San remains clean *longer* than a floor finished the ordinary way. But what's more important these days, they know that a *speedy, occasional* cleaning with a dry mop is all that is needed to keep a Seal-O-San floor spotless and bright.

For a Seal-O-San finish penetrates *deeper* . . . fills all cracks and cells that harbor dirt. It covers the floor with a wear-resisting armor that *prevents* dirt from piercing the surface. That is why dirty traffic lanes cannot get a foothold on a Seal-O-San floor. That is why stains from ink or chemicals remain on the surface—easily removed *without scrubbing.*

In thousands of schools, Seal-O-San has proved itself the ideal floor finish, with unsurpassed qualities of beauty, wearability, and ease of cleaning.

Investigate Seal-O-San. You'll discover that low-cost, mop-applied Seal-O-San on *your floors* will make *your* wartime maintenance burdens a great deal lighter.

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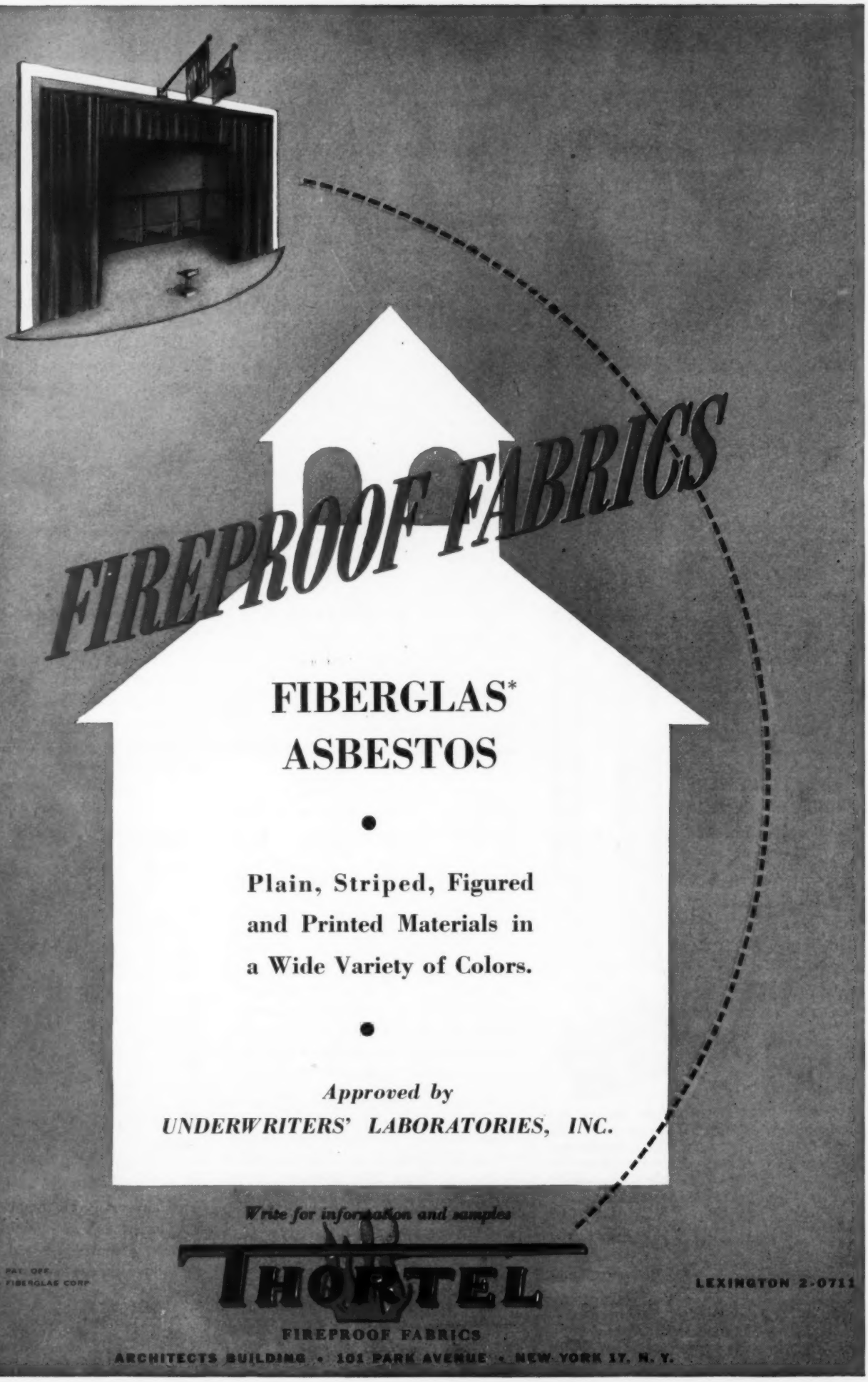
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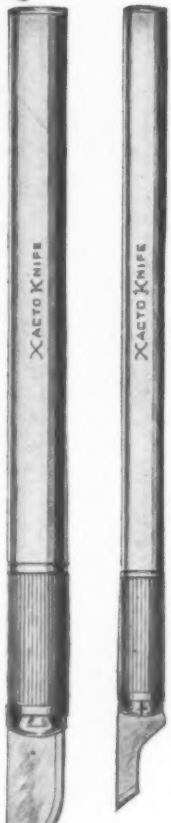
The knife that is always sharp for when the blade finally dulls with a simple twist of the wrist a factory sharp blade is inserted. 8 blade shapes and three handles to choose from. Send for a sample on your school letterhead. And ask for the X-Acto handbook "How to Build Solid Scale Model Warplanes."



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KIT NO. 82—Furnished with 3 handles, 12 blades and fitted wooden chest. $3.50

CHALK DUST

To a Beginning Teacher

BUT when you hire out to teach the youth of the land, some man will say, "Do you have discipline?"—meaning, "Are you bigger and stronger than they?"

Thou foolish one, all discipline is not the same discipline, but there is one kind of discipline for authoritarians and another kind for democracies. The one is the discipline of the dunce cap and the birch rod and the mailed fist, of man against man in a society whose members are responsible not to each other but to a master, of force and greed and ill will.

The discipline of democracy lies in the growth of the spirit. It is the discipline of respect for the rights of others, of cooperation and of personal responsibility, of individual growth and understanding and of making decisions.

The discipline of authority, paradoxically, is a soft and easy discipline to obtain but the discipline of democracy, which colors and climates all the disciplines of freedom, is essentially hard and tough to live by and hard and tough to learn.

The discipline of force leads to humiliation and shame and despair. The discipline of freedom is a guide, proper and good, for the sons and daughters of free men.

(Required Reading: Gentle Measures in the Management of the Young, Jacob Abbott, Harpers, 1872.)

● ●

HOW TO MAKE AND INFLUENCE

A school administrator should have personality; a ready smile, a hearty style, a certain bonhomie to mix with those in high places yet not forget the mob; the sense to mind his q's and p's and work hard at his job. But more important than all these, if fame he hopes to reach, the superintendent must know how to make a clever speech.

Without a moment's warning, minus haws and stammering, if he can swing some pedagese he needn't say a thing; for should he shout it louder in a more impressive way, the average crowd won't know he hasn't had a thing to say, and if, for ample measure, he inserts a striking phrase, his yearly contract is assured and long-lived are his days.

—Some fossils claim a superintendent ought to know his Greek, while others say it is enough to have a strong physique; conservatives will question does he know his rule of three, while progressives want a modicum of child psychology. But in this walkie-talkie day, the end result depends upon the satisfying way in which he says, "My Friends."

● ●

Memorandum to a Peace Commission

ONE of the most baffling problems which confronts a peace commission is the sequestration and return of booty which may have been unlawfully seized or confiscated during war time. For the information of your honorable body, I am glad to give you the benefit of my experience.

For a number of years I amgotted a school next to old Mr. Addison Sharp whose little kingdom lay directly in my path to more *Lebensraum*. Despite all my peaceful and diplomatic efforts to annex this land, including the chickens and pigs thereon, Old Man Sharp held his own. Naturally, battles broke out between us.

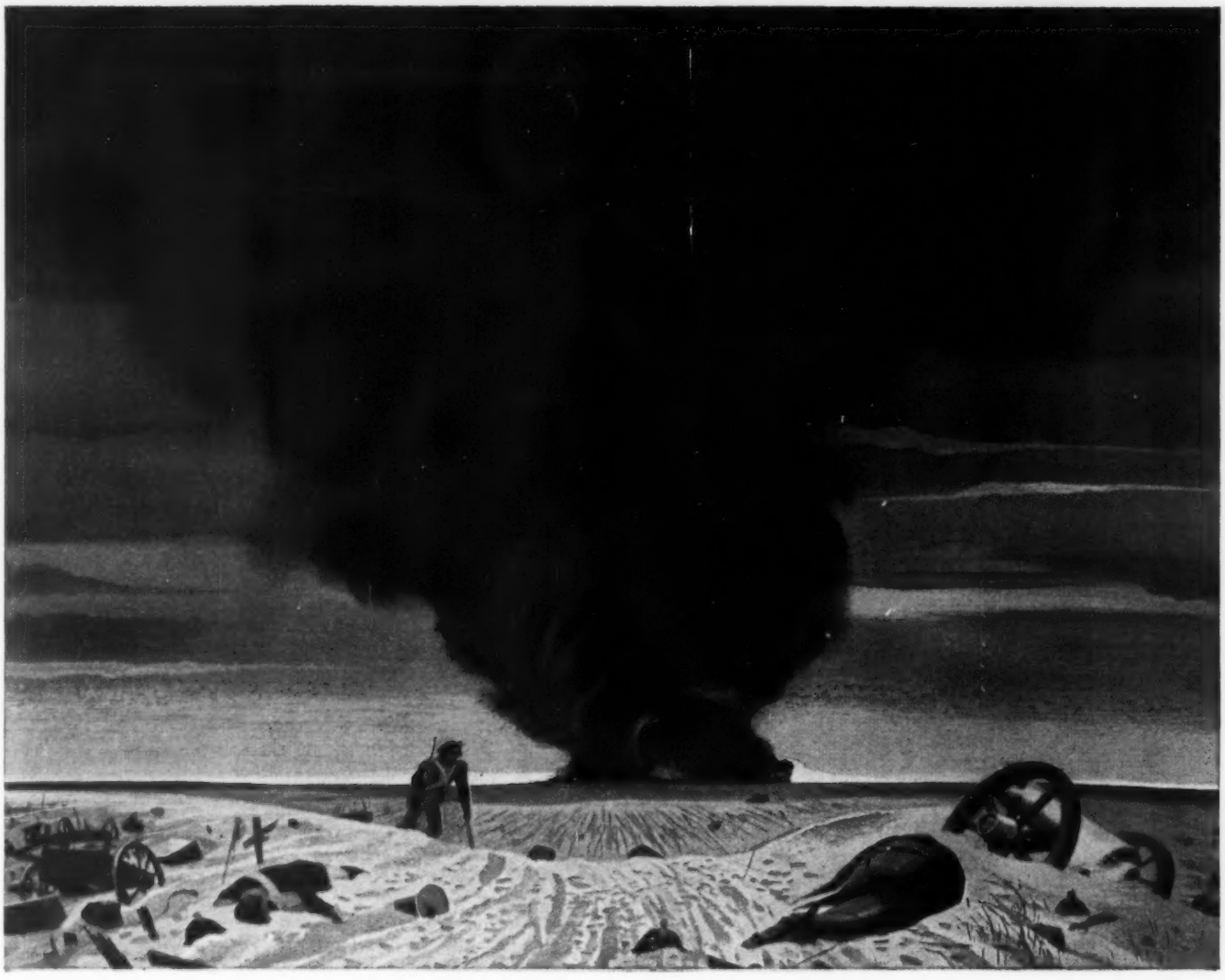
Once in anger I tried to blitz the old man but to my dismay discovered he was a bigger blitzer than I. During the watchful armistice which ensued, Old Addison used to lie in wait to confiscate any and all of the impedimenta used by my young commandos.

At length the situation became so untenable that one month's report showed a net loss of 12 baseballs, six tennis balls, a hoop and a pair of rubbers, the last being my own personal property abandoned by me in a quick strategic retreat after reconnaissance.

In desperation I appealed to my board of education for reserves. Armed with justice and right, seven brave men and true called on Mr. Sharp as a committee of mediation. Not only did they fail completely to recover the spoils of battle but in the resulting fracas a new war was started which was so sanguinary that my usefulness to the community, if any, was sadly impaired.

I cite this to you, gentlemen of the commission, sincerely and humbly, not with any hope that I have contributed a solution to your deliberations but merely to make you realize that your job and mine have much in common.

Frederick Gamble Koffee



Napoleon passed this way —

DOWN THIS PATH of sick defeat Napoleon and his armies fled from flaming Moscow. Beaten by the Russians, yes! But beaten, too, because supply lines failed.

Yet it was Napoleon who said, "An army travels on its stomach." He said it, then forgot it, and history tells the rest.

But *we* remember!

No troops in all the world are better fed than the American fighting men of World War II. Helping at the job of feeding them well, on whatever front they serve, is one of Hobart's war assignments.

Today, Hobart Food Machines pour out endlessly on military order. They go on the sea and under the sea in naval craft. They give around-the-clock service in vast training bases. They are at work in hospitals, institutions, industrial cafeterias—wherever America's might needs feeding.

Perhaps the Hobart machine *you* need was drafted by Uncle Sam as a last-minute addition to his regular requirements, and now is bound for another quarter of the globe. If so, we're sorry to disappoint you, but be assured of this: After the war is won, newer, finer Hobart Food Machines will be ready to serve your needs *just as soon as possible.*

* * *

Within the limits of War Production Board regulations, orders for Hobart Food Preparing Machines and Dishwashers can be accepted when accompanied by proper WPB approval. Your local Hobart representative will be glad to provide information regarding the possibility of obtaining new equipment to those supplying information regarding their requirements.

The **Hobart** *Manufacturing Company*

ARMY NAVY

TROY, OHIO • *Factories in Troy, Dayton, Greenville, U. S. A.*
CANADA • BRAZIL • ENGLAND • AUSTRALIA • FRANCE

This Flag represents Hobart's three awards for "...continued excellence in the production of munitions and war materiel."

School Cafeteria Score Card

for evaluating nutritional effectiveness

JANE MATHIS
Home Economics Teacher, Junior School, Mt. Holly, N. J.

and

KATHERINE CONNELLY WISELY
Food Education Specialist
Office of Distribution, War Food Administration

(School) (Address) (City or Borough)

(Principal) (Cafeteria Manager) (Age Range Pupils) (Enrollment)

	Max. Score	Actual Score Date	Date	Date
GENERAL APPEARANCE	5			
A. Adequate ventilation				
B. Pleasing appearance				
PROPER USE OF EQUIPMENT	2			
PERSONNEL				
A. Manager				
1. Qualifies for academic status on school faculty	4			
2. Managerial ability	4			
B. Other cafeteria personnel				
1. Efficient	2			
SANITATION				
A. Employes				
1. Annual medical examination	2			
2. Personal cleanliness	1			
3. Clean work habits	1			
B. Lunchroom and kitchen clean	2			
C. Equipment				
1. Proper sterilization of dishes, silver, glassware and cooking utensils	1			
2. Proper storage of dishes, silver, glassware and cooking utensils	1			
D. Linens				
1. Towels conveniently stored	1			
2. Use of clean towels	1			
E. Food				
1. Use of good quality food	2			
2. Food adequately refrigerated	2			
F. Storage				
1. Convenient arrangement of stored food	1			
2. Most sanitary storage in space available	2			
G. Garbage				
1. Cans cleaned and disinfected daily	1			
2. Cans covered when not in use	1			
H. Extermination of insects and vermin	2			
I. Hand washing facilities	2			
1. Convenient for cafeteria employes				
2. Convenient for cafeteria patrons				
SAFETY PRECAUTIONS EXERCISED	4			

	Max. Score	Actual Score Date	Date	Date
FOOD SERVICE				
A. Choice permitted ensures ⅓ daily food requirements				
1. Milk	3			
2. Protein food	3			
3. Vegetable and/or fruit	3			
4. Bread or cereal	1			
5. Butter or fortified margarine	1			
B. Conforms to dietary habits of community	1			
C. Variety of flavor, texture, color	2			
D. Palatability	2			
E. Foods prepared to conserve food values	4			
F. Minimum plate waste	2			
G. A la carte service				
1. Supplement of milk and fruit or vegetable for pupils bringing lunches from home	2			
2. No candy, soft drinks or resale pastry	2			
H. Foods served attractively	3			
SERVING PERIOD				
Adequate to accommodate entire school	4			
ADEQUATE RECORDS	8			
LUNCHROOM TEACHING OF NUTRITION				
A. Visual Education	4			
1. Nutritive value of "special"				
2. Contrast nutritive value of "special" and a la carte service				
3. How food rationing affects nutrition				
4. Effect of nutrition on daily life				
5. Table etiquette				
B. Participation	6			
1. Selection of adequate luncheon				
2. Practice of table etiquette				
GUIDANCE OF PUPILS PARTICIPATING IN LUNCHROOM ACTIVITIES	5			
A. Decorating the cafeteria				
B. Serving as host or hostess				
C. Maintaining order				
D. Maintaining cleanliness				
E. Scraping trays in preparation for dishwashing				
F. Checking trays for nutritional adequacy				
G. Assisting in food preparation and service				
H. Others				
TOTAL	100			

Interpretation of Scores

100-90	Promotes optimum nutrition in community
90-80	Promotes adequate nutrition in community
80-70	Promotes subsistence nutrition in community
70-60	Promotes inadequate nutrition in community

YOU CAN'T SERVE BETTER!

Let not cost per can but profit per serving be your standard in judging fruit. This symphony in color speaks for itself, portraying appetite appeal that will win new patrons as well as hold the old ones. From orchard to table the ambrosial, tree-ripened goodness of the fruit is protected by Sexton's high standards of selection and packing, each can chock full of uniform goodness.

Good food for pleased guests

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Quality Foods

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Can School Kitchens Be Modernized?

Yes, easily...with Hotpoint-Edison Commercial Kitchen Plan Service

Efficiency in every department is the prime requisite of every school . . . the kitchen is no exception. You must be able to serve appetizing, nourishing food with a minimum of effort. With the aid of Hotpoint-Edison's *Commercial Kitchen Plan Service* you can design a modern kitchen where both food preparation and serving are simplified . . . a kitchen where there is no lost motion.

Thirty-two years experience in developing mass-feeding kitchens of many kinds go into this free consulting service which is yours for the asking. You are under no obligation. Your problem is treated individually by Hotpoint-Edison kitchen designing experts who have aided many in constructing modern school kitchens.

Place kitchen where you want it. Forget old rules against locating kitchen centrally because of ventilation and heat radiation problems. With electricity you can place Kitchen where it is most convenient. Smoke and fumes are eliminated too, which minimizes on cleaning and renovating expenses.

Consider the economy and safety . . . only one fuel is necessary for light, power and cooking. You economize not only in cooking, but the sturdy construction of Hotpoint-Edison equipment cuts maintenance expenses to the minimum. Modern, scientifically designed appliances save space, too. And with electricity, the dangers of fire hazards are eliminated, safety is assured.

Equipment now available. Regulations now permit the manufacture of a limited amount of equipment for essential civilian use. If your present equipment is inadequate or beyond repair, consult your local Hotpoint-Edison distributor or write to us. Edison General Electric Appliance Co., Inc., 5696 West Taylor Street, Chicago 44, Illinois.

For outstanding achievement in War Production

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Hotpoint Edison

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DEEP FAT FRY KETTLES • BROILERS • GRIDDLES

OLDEST AND LARGEST MANUFACTURERS OF ELECTRIC COOKING EQUIPMENT

FOR VICTORY — BUY U. S. WAR BONDS AND STAMPS

Shortenin' Bread

Corn breads are energy food.... They're inexpensive, easily prepared and highly nutritious . . .

BLANCHE TANSIL

Associate Professor of Home Economics
Woman's College, University of North Carolina

CORN is an ancient yet modern energy food that has played a major rôle in the development of our country. But corn is more than an energy food. Corn is a good source of iron and vitamin B_1 and supplements protein and riboflavin from other sources in the diet. It is no wonder that travelers on the early trails carried a bag of corn to stay their appetites or that johnnycake became traditional.

Need for Energy Foods Growing

The need for energy food is on the upswing. Schools are increasing their programs in physical education, curtailing their transportation services and sponsoring in- and after-school activities for the war effort. American school children will be needing an iron ration to steel them for the new activities ahead. To furnish that extra energy, breads made of corn meal may be pushed more prominently in the school lunch menu.

Corn breads are cheap, easily prepared, universally well liked and especially appetizing when served with vegetables and salads. The first requirement for making good corn breads is freshly ground whole grain corn meal. For best results the meal should be stone ground and medium fine. If the meal is too granular, then flour must be added in some recipes, and that ruins the corn bread for a Southerner! Let the meal be white or yellow, as one prefers, for there is no difference in the food value except in the vitamin A, and that vitamin is usually provided in the lunch by a green leafy vegetable. However, to a Southerner the white meal has more flavor than the yellow and is preferred in making most breads.

Corn meal lends itself to a variety of simple preparation processes with equal success. The famous corn pones are made by adding boiling water and a small amount of shortening to the corn meal. This thick batter is then shaped with the hands into pones (a disher is used in institutions) which are baked in the oven. Adding salt is optional. This batter also may be fried as cakes on top of the stove or dropped into hot fat to produce those crisp balls served with fish.

Corn bread is made more often by adding buttermilk and eggs to enrich the batter. It is then baked in a well-greased shallow pan until brown and cut in squares to serve. The batter can also be used for muffins and cornsticks.

Spoon Bread a Favorite

Spoon bread is a more expensive and delicate dish. It is usually made with a scalded meal base to which are added milk and eggs. If the eggs are not separated, the texture is custard-like and the spoon bread has a crisp brown crust but, if the whites are folded in last, it resembles a soufflé. Whatever the method of mixing, all agree that spoon bread should be delicate and served steaming in the container in which it is cooked. It should be buttered and eaten while hot.

Corn crisps are new. They were born of war-time shortages. To meet the need for a cheap but unusual tea cracker to serve with vitamin-rich vegetable punches and cocktails, the corn crisp recipe was evolved. Corn crisps are worth the time and patience necessary to acquire the skill to produce them. They are economical, costing less than a cent a dozen.

Simple as the recipes are for making corn breads, there is a certain trick or knack in getting the right results. Learning it will pay rich rewards. The first thing to learn is to know your corn meal. Since corn breads complement vegetables in many ways, are cheap and quickly and easily prepared, their use should be extended in the menu plan.

Recipes for Popular Corn Breads

Below are recipes for popular corn breads served in the home economics cafeteria of the Woman's College of the University of North Carolina.

Plain Corn Pones

Yield: 6 dozen, 2½ inches in diameter

Corn meal	3 lb. or 2½ qt.
Salt	1 oz. or 1½ tbsp.
Shortening	¼ lb. or ⅜ cup
Boiling water	1⅔ qt.

Sift corn meal and salt into mixing bowl. Add shortening. Pour in boiling water while beating rapidly. Cool slightly and place on a well-greased baking sheet, using a spoon or No. 24 disher. Flatten pones to one half inch thickness. Bake in hot oven, 450°F., for fifteen minutes until browned.

Corn Pones

Yield: 6 dozen, small

Corn meal	3 lb. or 2½ qt.
Salt	2 tbsp.
Boiling water	1 qt.
Shortening	¾ cup
Buttermilk	3 cups
Soda	1½ tsp.
Cold water	1 tbsp.

Sift corn meal and salt into bowl. Pour in boiling water, stirring rapidly. Add shortening and stir until melted, then buttermilk and soda which has been dissolved in the water. Place on a greased baking sheet, using a No. 24 disher, and bake in a hot oven, 450°F.,

for fifteen minutes until browned.

Crackling Corn Pones

Yield: 4 dozen

Corn meal	2 lb. or 1⅔ qt.
Salt	1½ tbsp.
Soda	2½ tsp.
Buttermilk	1¼ qt.
Cracklings, cut in ¼ in. cubes	1 lb. or 3 cups

Sift dry ingredients into mixing bowl. Add buttermilk and cracklings and mix thoroughly. Place in a well-greased baking pan, using a No. 24 disher. Bake in a hot oven, 425°F., for from fifteen to twenty minutes.

Corn Bread or Muffins

Yield: 4 dozen, 2 inch squares or muffins

Corn meal	2 qt. or 2½ lb.
Soda	1⅓ tbsp.
Salt	1⅓ tbsp.
Baking powder	1⅓ tbsp.
Buttermilk	2 qt.
Eggs	6 to 8
Shortening, melted	1 cup

Sift the dry ingredients together. Add milk and eggs and beat well, then stir in the shortening. Pour into a well-greased shallow baking pan and bake in a hot oven, 425°F., for forty-five minutes. Cut in squares and serve hot or use a No. 20 disher and fill greased muffin pans two thirds full and bake at the same temperature for twenty-five minutes. Serve hot.

Note: This batter can be cooked in cornstick pans or fried as corn cakes as desired.

Spoon Bread

Yield: 3 dozen servings, each 5 ounces

Corn meal	1 qt.
Boiling water	1½ qt.
Shortening	¾ cup
Salt	2 tbsp.
Baking powder	2 tbsp.
Milk	2 qt.
Eggs, well beaten	12

Sift corn meal into large pan. Pour in water, stirring vigorously to make a smooth thick mush. (It may need to cook a few minutes to thicken it.) Add shortening and when melted add remaining ingredients. Mix quickly and well and pour immediately into greased baking pans to a thickness of 1½ inches. Bake in a moderate oven, 400°F., for from forty to forty-five minutes until firm in the center and brown on top.

Note: Serve from the baking pan with a spoon and butter it while hot.

Add 1 to 2 cups of crisp, diced salt pork or bacon to the batter to make a pleasant change.

Corn Crisps

Yield: 9 dozen, 3 inches in diameter

Corn meal	3 cups
Water, boiling	5 to 6 cups
Salt	1 tbsp.
Shortening	½ cup

Pour boiling water over corn meal, stirring vigorously. Stir in salt and fat. Drop by tablespoons on a well-greased baking sheet and bake in a hot oven, 425°F., for twenty minutes, until brown and crisp.

Note: The mixture must be very thin to spread in even round, thin cakes three inches in diameter. The amount of water will vary with the fineness of the meal. Serve with salads or cocktails or for afternoon tea.

Steamed Brown Bread

Yield: 12 small loaves

Corn meal	1 lb.
Whole wheat flour	2 lb.
Soda	2⅔ tbsp.
Salt	1⅓ tbsp.
Raisins	1⅓ lb.
Molasses	3 cups
Buttermilk	2 qt.

Mix the dry ingredients well. Stir in the raisins. Add the liquids and mix only until blended. Pour immediately into well-greased molds, filling two thirds full, cover and steam for three hours. Remove from molds and serve hot or cold, after slicing in rounds one half inch thick.

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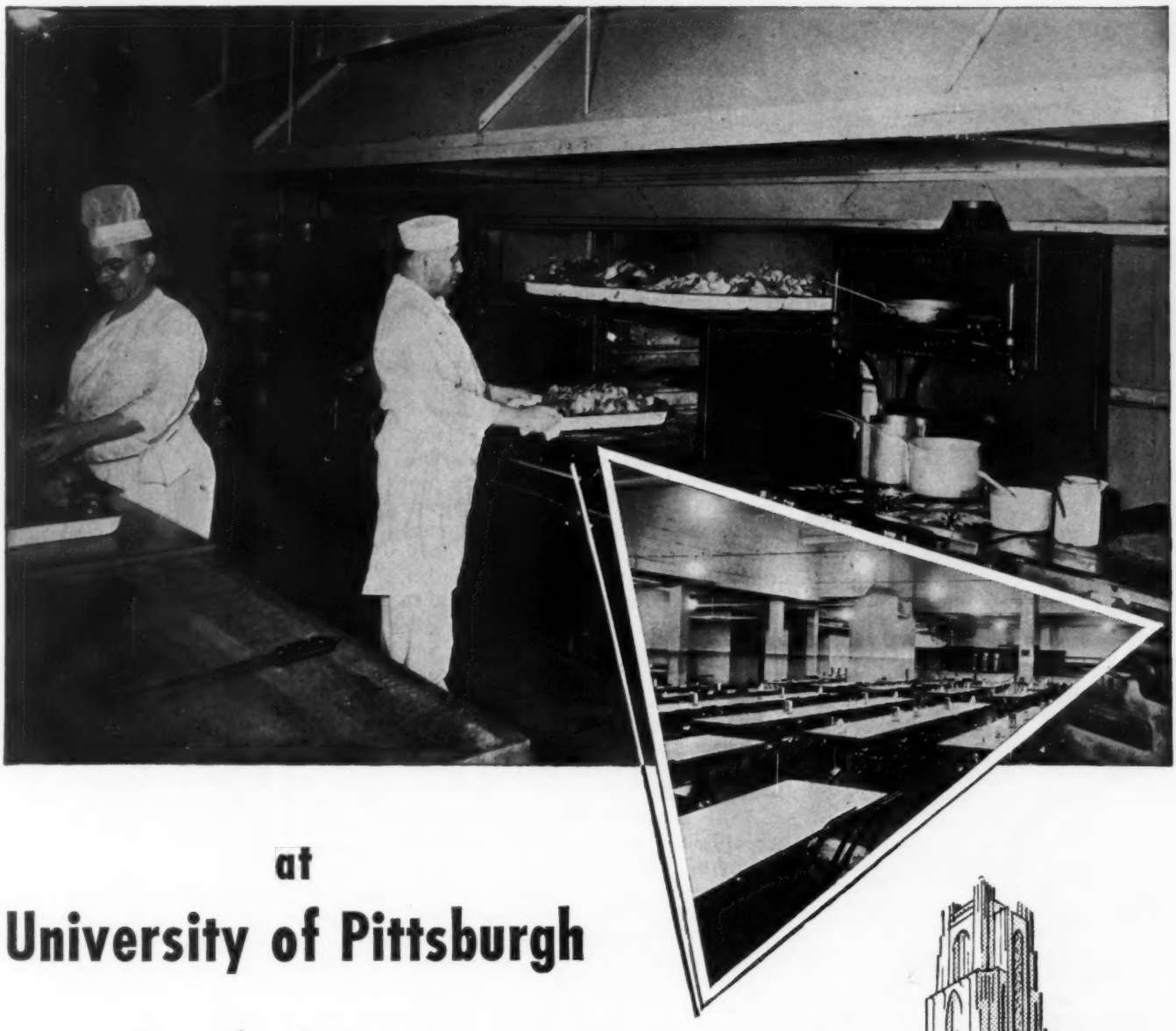

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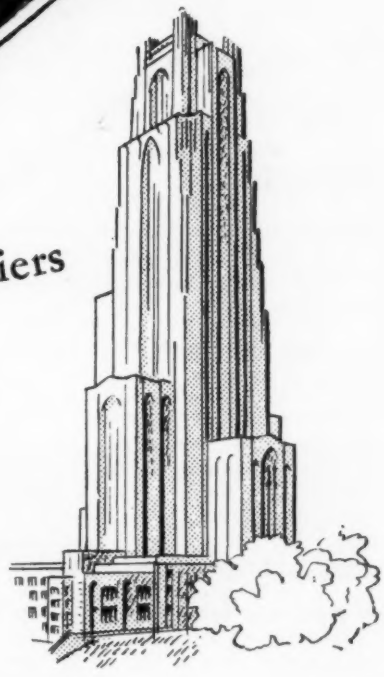
When you are making plans for remodeling, call in your local Gas company's commercial representative. He will bring you up to date on all phases of Gas cooking equipment—show you how Gas will save you money while doing a grand cooking job.



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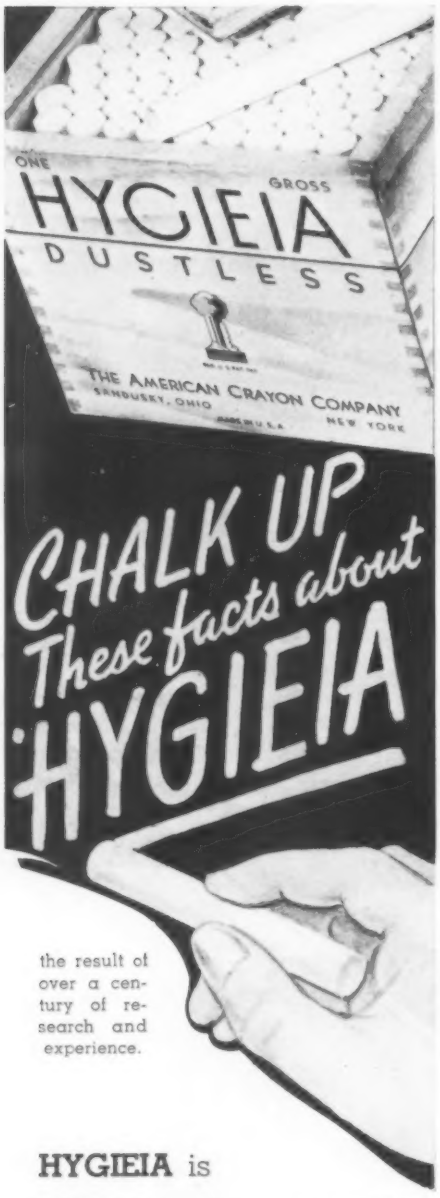

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If today you cannot get all the Hygieia you need it is only because war production is demanding so much of the American Crayon Company's facilities.

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SANDUSKY, OHIO

NEWS IN REVIEW

Conference on Rural Education

The first White House conference ever held on rural education has been called for October 3 to 5. Present will be 200 leaders of groups whose economic and social interests are linked with the prosperity of rural American life—farmers, labor leaders, publishers of agricultural journals, the rural press, government officials, farm organizations, industrialists, public health officials and parents specifically concerned with rural schools.

The conference will make recommendations for extending health and physical education to rural children, for adapting the curricular and extracurricular program to the needs of farm youth, providing for minority and exceptional groups in rural areas, modernizing the rural educational plant, advancing teacher qualifications for rural schools and other improvements.

The interdependence of rural and urban economics, the health of rural young people, the extension of complete educational opportunity to farm children to whom it is now denied and the postwar conversion plans of farm schools will be considered.

The conference is financed by the National Education Association and planned jointly by three divisions of the N.E.A. headquarters staff. Cooperating with Charl Ormond Williams, executive chairman of the conference and director of field service of the N.E.A., are Howard A. Dawson, director of rural service of the N.E.A.; R. B. Marston of the division of legislative and federal relations of N.E.A., and his associate director, Glenn Archer.

Food Service Directors' Meeting

The Food Service Directors' Conference will be held at the Statler Hotel in Cleveland November 17 and 18. On the first morning trips will be made to school lunchrooms of Greater Cleveland, industrial and commercial cafeterias, hospital kitchens, a college dormitory kitchen and the Cleveland Health Museum. Panel discussions, group meetings, a demonstration in the preparation of salads and vegetables by Hotel Statler dietitians and short discussions on problems vital to food service directors will be held on the various days of the meeting. An address on "The Effects of Nutrition on World History" will be given at the banquet November 17.

Gatlinburg Conference

Some hundred educators and librarians, supplemented and balanced by an almost equally large group of specialists in agriculture, conservation, forestry, water control and over-all planning, and representatives of state and regional organizations interested in the improvement of rural and urban life through agricultural, forest and industrial research met at Gatlinburg, Tenn., September 6 to 12, in the second annual conference of the Committee on Southern Regional Studies and Education.

The general theme was the fundamental and early need for integrating all educational activity with the total regional environment and culture. This was developed on a wide basis by Dr. Harcourt A. Morgan of the Tennessee Valley Authority in terms of the scientific approach to living through man's understanding of his environment and his control over, and intelligent use of, natural resources.

The general theme was further developed by Prof. Paul B. Sears of Oberlin College who emphasized the fact that the application of intelligence in the use of natural resources determined not only the number of people but also their general culture and type of living. The theme was further expanded by Prof. Howard W. Odum, University of North Carolina, one of the oustanding southern regional specialists.

This gathering of technicians, specialists and generalists in the several fields was a work conference in the true sense of the word, organized and operated on an extremely democratic basis. Apart from three limited speeches designed to provoke discussion, the conference worked on special problems in small committees, on larger area problems in mixed state and regional committees and through a central panel or steering committee. Six days of morning, afternoon and evening small and large group conferences permitted full exchange of views and the development of a larger understanding of specially organized but generally related problems. Technical and research specialists discovered some of the problems facing education, and educators were made aware of the possibility of education as a dynamic, instead of merely an academic, process.

The meeting was sponsored by the American Council of Education, financed through a generous General Education Board grant, and was efficiently organized and conducted by the Committee on Southern Regional Studies and Education composed of Maurice F. Seay, chairman, Gordon W. Blackwell, John E. Brewton, George F. Gant, G. D. Humphrey, E. L. Morphet, Homer P. Rainey, Roy W. Roberts, George F. Zook (ex officio) and John E. Ivery Jr., executive secretary.—A. B. M.

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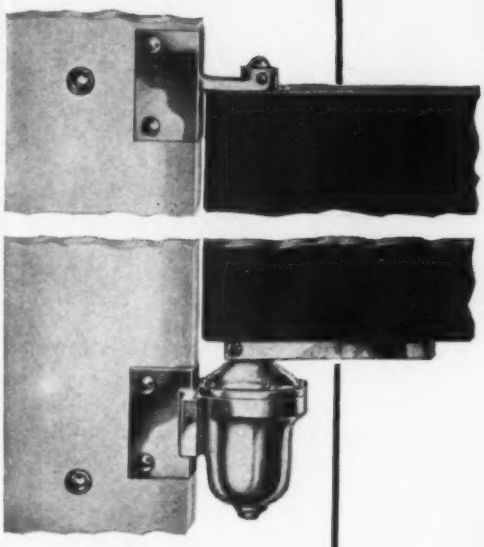

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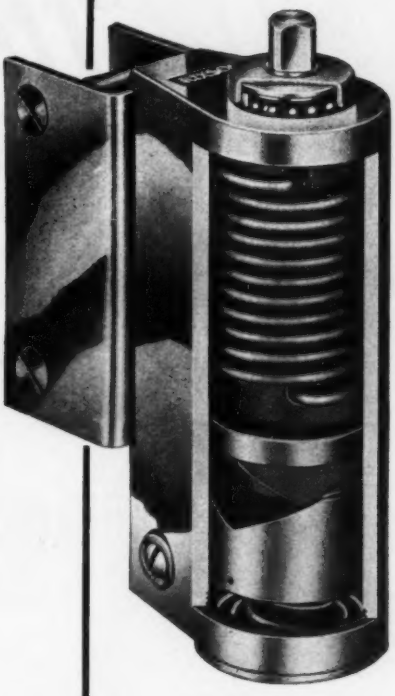

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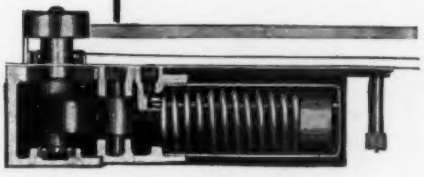

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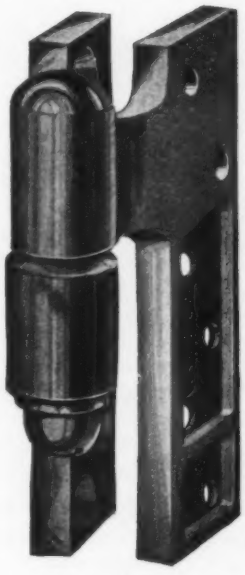

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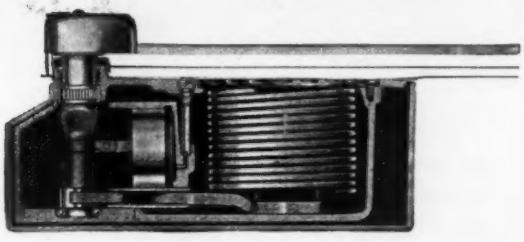

Rixson No. 20 and No. 25 Single Acting Checking Floor Hinges

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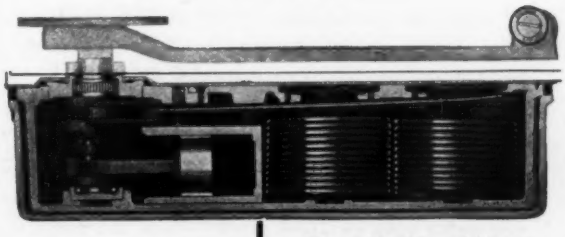

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FOR POSTWAR KITCHENS

Keystone of faster, better service in tomorrow's efficient kitchen will be an up-to-the-minute dishwashing section. And you can start plans right now with the aid of Colt's kitchen planning service. In line with your plans, we will recommend the proper size and type of Colt Autosan exactly suited for your needs.

Among the efficiency features of Autosans are: thrifty use of space and flexibility of arrangement to provide ideal dish traffic ... fast and thorough "cloudburst action" that hurries dishes back into use, makes light work of peak hour needs ... every model designed to be easily kept clean ... all scrap trays and spray parts removable without tools. Add to these features the proven long life of Colt Autosans, and you have a formula for future dishwashing that will provide maximum efficiency and bed rock economy.

Whether you plan to serve 100 or 2000 persons per meal – let us help you solve your problems now before the postwar rush begins. Write, telling us when you would like to have one of our representatives call.

Colt Autosan War Models are now available subject to WPB approval.

COLT AUTOSAN

DISH, GLASS AND SILVER WASHING MACHINES

Colt's Patent Fire Arms Manufacturing Co., Autosan Division, Hartford, Conn.

INSTRUCTION

Social Security Education

A project in education about social security was initiated September 1 by the American Council on Education. Training institutes for the employed personnel of the social security program, teachers of social science in undergraduate colleges and in schools of social work, business executives, clergymen and other civic leaders will be given throughout the country in cooperation with local universities and colleges. An exchange of information and ideas among teachers and administrators interested in the development of the content of education about social security will be set up.

Director of the project is Karl de Schweinitz, training consultant for the Social Security Board. Made possible by a grant from the Rockefeller Foundation, the enterprise is being conducted under the auspices of a committee, the organizing nucleus of which consists of Arthur J. Altmeyer, chairman of the Social Security Board; J. Douglas Brown, professor of economics and director of the industrial relations section of Princeton University; John W. Mason, president of Swarthmore College, and George F. Zook, president of the American Council on Education.

Cornell's Lectures on Civil Liberties

To help counteract the shocking disclosure that 77 per cent of the American people do not know what the Bill of Rights is, revealed in a recent survey, Cornell University announces the Edward L. Bernays lectures on civil liberties to be given this fall. The lectures are expected to provide a rallying point for the reaffirmation of faith in the principles in our Bill of Rights.

To Teach Aviation Fundamentals

As a result of a trial program initiated in New York City high schools last spring, a basic two year course in fundamentals of aviation is being sponsored by the Greater New York Cadet Training Groups of the Civil Air Patrol. The course will train 15 to 17 year old boys for the Air Forces enlisted reserve and girls for the Women's Army Corps, as well as create a postwar civilian flying force.

Asks Federal Scholarships

To establish a "scientific reserve" of great military value, Dr. James Bryant Conant, president of Harvard University and chairman of the National Defense Research Committee, urged the government to plan a $25,000,000 national scholarship program for promising students in science and technology.

SCHOOL SUPERINTENDENTS! Save in 3 big ways with COLGATE-PALMOLIVE-PEET SOAPS
1. THEY SAVE WORK!
2. THEY SAVE REFINISHING!
3. THEY SAVE MONEY!

SCHOOL CLEANLINESS GUIDE

FOR CLEANING	USE
Painted, Enameled and Varnished Walls and Woodwork	Colgate Kwiksolv
Linoleum, Cork, Rubber and Asphalt Tile Floors	Colgate Kwiksolv
Oiled or Waxed Woods	Colgate Kwiksolv
School Buses	Colgate Kwiksolv
Plumbing Fixtures—Vitreous Enamel, Vitrified China and Tile	Octagon or Crystal White Scouring Cleanser
Venetian Blinds, Shades, Interior Marble	Colgate Kwiksolv
Steam Tables, Refrigerators, Pots, Pans and other Cafeteria Equipment	Octagon or Sea Foam Soap Powder

By standardizing on these high-quality, low-priced C.P.P. soaps, you purchase fewer soap types—reduce costs—increase cleaning efficiency!

DON'T WASTE SOAP . . . vital materials needed to win the war are used in making soaps.

Before you order your next supply of maintenance soaps, call in a Colgate-Palmolive-Peet representative and ask for details and prices. Or, write direct to our Industrial Department at Jersey City 2, N. J.

COLGATE-PALMOLIVE-PEET, CO.

JERSEY CITY 2, NEW JERSEY KANSAS CITY 3, KANSAS
JEFFERSONVILLE, INDIANA BERKELEY 2, CALIFORNIA

WASHINGTON NEWS

By EVA ADAMS CROSS, Special Correspondent

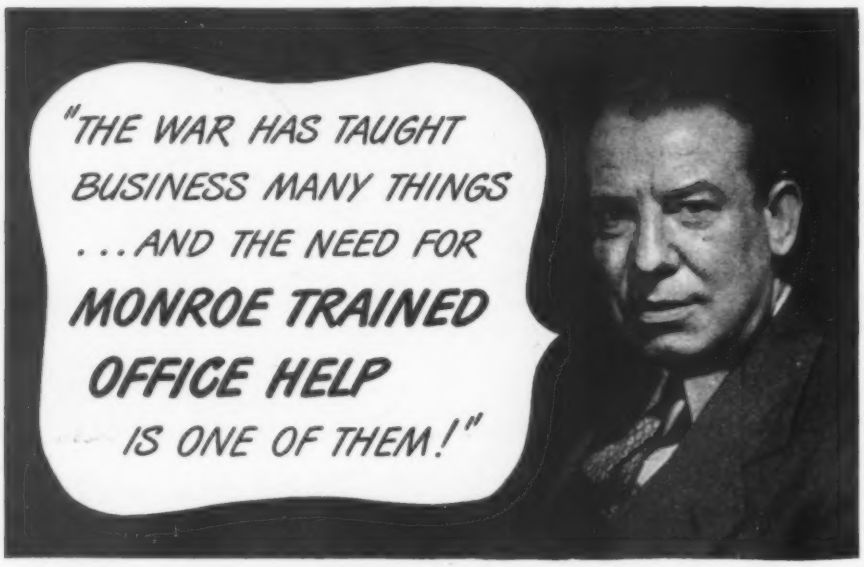
Veterans' School Fees

The following provisions have been made by the Veterans Administration for the collection of tuition and fees by colleges and universities for veterans who desire to return to school.

1. The colleges will charge the Veterans Administration the same tuition and fees that they charge regular students. This sum must be not less than $10 a month, $30 a quarter or $40 a semester, a minimum which is construed as an attempt to keep out fraudulent or fly-by-night colleges.

2. State and municipal colleges and universities may charge the same rates that were in effect for nonresident students before June 22, 1944.

3. No payment may be in excess of $500 for an ordinary school year, including tuition and fees. None of the money may be used for board, lodging or transportation.



NOW is the time for planning

... Let us work with you

War conditions have caused a record demand for Monroe-trained graduates—a demand that will continue, for business has found them indispensable. Here are three ways that we can help you plan now for the future. (1) Recommend the proper machine equipment for your future needs. (2) Help you plan courses, and discuss and recommend text books. (3) Study the employment area you serve, to see if you can get priority for equipment now.

Call on your Monroe representative or write our Educational Department—be ready to meet the demand for Monroe-trained students.

• • •

The Monroe Educator *is a regular Monroe Adding Calculator for schools only . . . let us explain its availability under present conditions.*

Office Practice Course—*30-lesson course adapted to Monroe Educator—50¢ including Teacher's Manual.*

School Manual of Instruction—*in 2 parts—elementary and advanced. $1.50 including answers.*

MONROE CALCULATING MACHINE COMPANY, INC. Educational Department Orange, New Jersey

V-12 Program Revised

The bureau of naval personnel has completed plans for a downward revision in the pilot candidate output of the Navy V-12 college program, according to the Navy Department on September 5. The revised training schedule will affect 18,000 officer candidates who enrolled between November 1, 1943, and July 1, 1944, for preliminary academic study leading to training as naval aviators.

The number of pre-aviation students who will eventually enter flight training after completion of normal V-12 pre-aviation training will be reduced from 18,000 to approximately 9000. However, pre-aviation students who are not selected for flight training will remain in the V-12 program for additional training leading to commissions as deck, engineering and specialist officers in the Naval Reserve.

Educational Level of Veterans

E. V. Hollis, U. S. Office of Education, called attention recently to a rough index of the postwar educational problems that schools and colleges must plan to solve. The index is provided by a tabulation of the educational level of men and women at the time they entered the armed services.

Of 8,000,000 enlisted men in the Army, Navy, Marines and Coast Guard for whom data were available, approximately 22 per cent had completed the eighth grade or less; 34 per cent had had from one to three years of high school work; 33 per cent were high school graduates; 9 per cent had completed from one to three years of college work, and 2 per cent were college graduates and postgraduates.

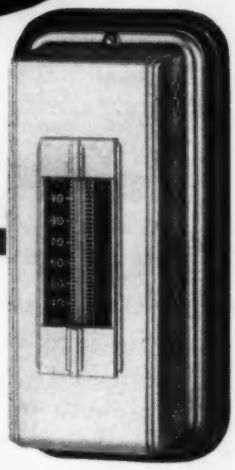
Similar figures for 96,000 women volunteers in the armed services showed that 4 per cent were eighth grade graduates or less; 21 per cent had had from one to three years of high school; 57 per cent were high school graduates; 11 per cent had completed from one to three years of college, and 7 per cent were college graduates or postgraduates.

Study Effect of War on Colleges

In order to obtain facts for a study of the effects of the war on colleges, a letter was sent out recently to colleges and universities by the committee on education of the House of Representatives. Last June the House passed a resolution (H. R. 592) directing its committee on education to make a study of higher education and "to formulate as soon as practicable, for consideration by the

WINTER'S COMING

Check temperature control equipment now!



Correct, even temperatures...

Healthy bodies, alert minds, even dispositions

DURING wartime, heating plants must be operated at *peak efficiency* to guard health and conserve fuel.

Highly trained, efficient Johnson field mechanics are available, insofar as Johnson's war work will permit, to check temperature control equipment in schools and other institutional buildings and to make repairs and adjustments which are so necessary to economical, trouble-free winter performance.

For more than 50 years, the Johnson Service Company has specialized in the design, manufacture, installation and maintenance of temperature control systems. Phone or write to the nearest branch office of the Johnson Service Company *now* for detailed information . . . no obligation, of course.

JOHNSON SERVICE COMPANY

Temperature Control Equipment

MILWAUKEE, WISCONSIN

Direct Branches in All Principal Cities

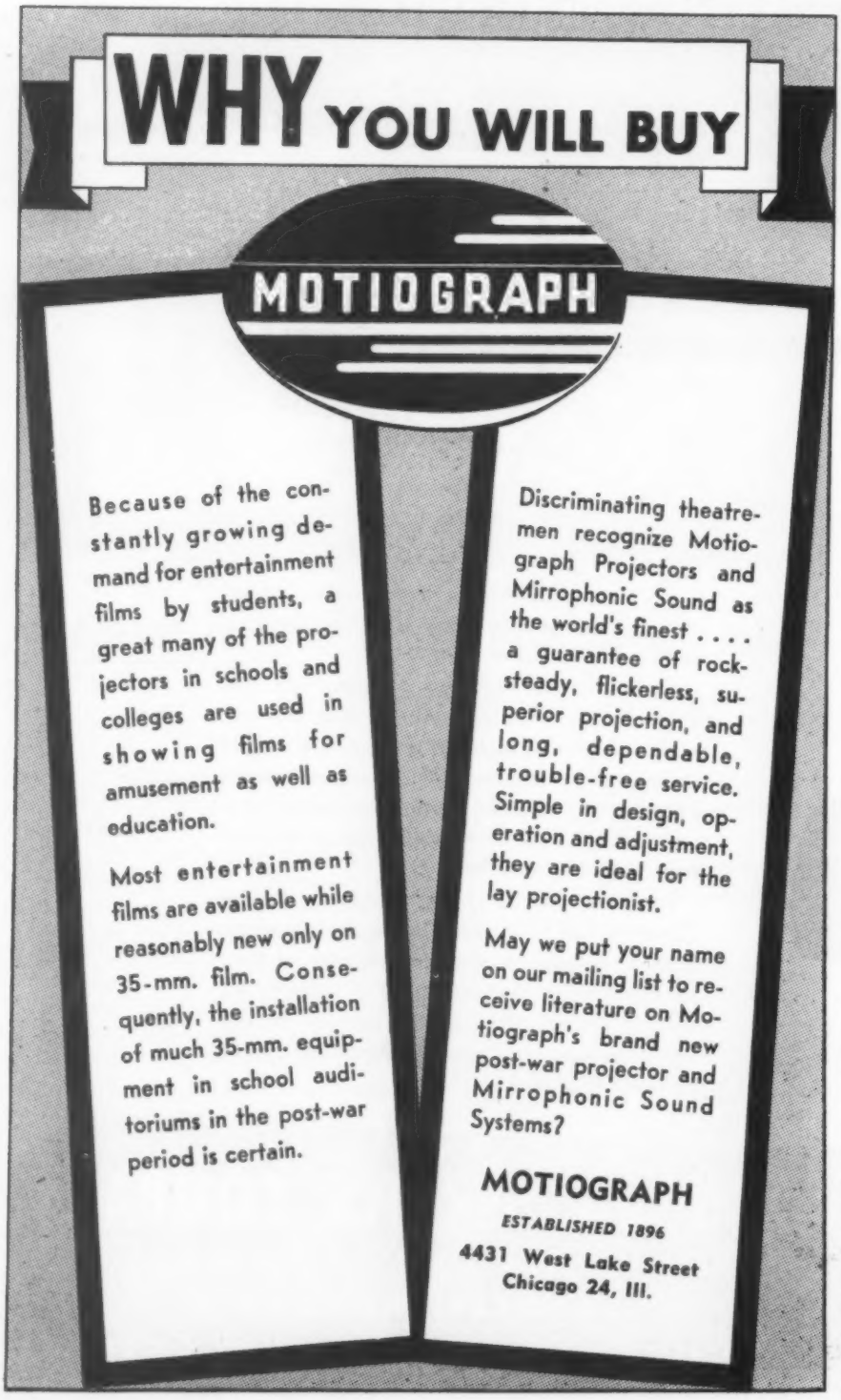
House, such legislation as the committee deems appropriate for the purpose of alleviating such effects."

The advisory committee of the study of higher education, headed by Dr. Francis J. Brown, held its first meeting August 16 to 18 and agreed that as a general policy federal funds should be appropriated only if they are necessary to maintain colleges and universities at a high level of effectiveness. Payment to institutions should be only for services rendered in the national interest, broadly interpreted. The most effective assistance would be that which enables institutions to help themselves and, if given, should be without federal control, the letter points out.

Needs for FM Broadcasting

The National Education Association is preparing to defend education's needs for frequency modulation broadcasting at a series of hearings before the Federal Communications Commission beginning September 28. Since the present demand for frequency channels already exceeds the number available, the hearings will examine claims of the various radio services for their postwar needs.

S. D. Shankland, executive secretary of the American Association of School Administrators, states that educational FM broadcasting has a vital stake in the outcome of these hearings. Several witnesses will be present to justify N.E.A.'s claims that education must have a minimum of 15 consecutive FM channels. Through information gained from short questionnaires sent to all public school systems in cities with populations over 20,000, N.E.A. and its affiliates expect to show that a substantial number of school systems, colleges, universities and state departments of education actually intend to establish educational FM broadcasting stations as soon as possible after the war.


WHY YOU WILL BUY
MOTIOGRAPH
Because of the constantly growing demand for entertainment films by students, a great many of the projectors in schools and colleges are used in showing films for amusement as well as education.
Most entertainment films are available while reasonably new only on 35-mm. film. Consequently, the installation of much 35-mm. equipment in school auditoriums in the post-war period is certain.
Discriminating theatremen recognize Motiograph Projectors and Mirrophonic Sound as the world's finest . . . . a guarantee of rock-steady, flickerless, superior projection, and long, dependable, trouble-free service. Simple in design, operation and adjustment, they are ideal for the lay projectionist.
May we put your name on our mailing list to receive literature on Motiograph's brand new post-war projector and Mirrophonic Sound Systems?
MOTIOGRAPH
ESTABLISHED 1896
4431 West Lake Street
Chicago 24, Ill.

Farm Skills Taught by Movies

Fundamental farm skills, such as horseshoeing, sheepshearing, repairing of tractors and mowers, are now being taught with the assistance of a series of six motion pictures produced by the U. S. Office of Education.

The films show how to keep old equipment in working order and what to do if machinery breaks down. Filmstrips review and clarify important points in the films. Instructor's manuals describe the best ways of using the visual materials.

Office of Education farm work films are used in vocational agriculture classes, 4-H Clubs, Future Farmers of America meetings, extension groups and community gatherings.

The pictures were planned by technical experts and specialists in visual education. They can be purchased from Castle Films, Inc., 30 Rockefeller Plaza, New York City, the contractual distributor of all Office of Education visual aids, and can be rented from many 16 mm. educational film libraries. Copies of the instructor's manuals are furnished without charge by the Office of Education to users of the films.

Schools Get N.Y.A. Property

Under the appropriations bill for the Federal Security Agency passed late in June, millions of dollars worth of N.Y.A. equipment, formerly held on loan by schools, school systems and institutions of higher education, becomes the property of the institution in which such property is located. It had previously been subject to recall by the procurement division of the U. S. Treasury.

Pending Education Bills

Bill S-2109 to provide for the education and training of members of the merchant marine and certain members of the Women's Army Corps after their discharge from service was introduced August 28 by Senator Thomas of Utah. The bill proposes an extension of the educational provisions set forth in Title 11 of the G. I. Bill of Rights.

Now- NEW VISUAL AIDS FOR CLASSROOM USE

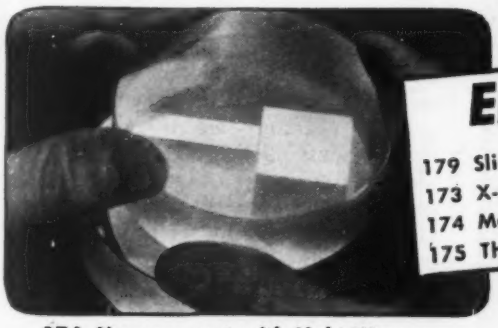
Over 250 U. S. Office of Education Motion Pictures and Filmstrips Available

★ Each subject a complete visual unit—16mm. sound motion picture, filmstrip, and instructor's manual.

★ Supervised and produced by visual training specialists of the U. S. Office of Education.

★ Low priced—as little as $15 a subject.

A FEW OF THE WIDE VARIETY OF U. S. OFFICE OF EDUCATION FILM SUBJECTS



174 Measurement with Light Waves

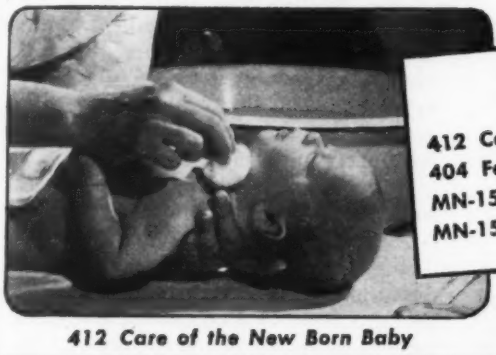
ENGINEERING

179 Slide rule
173 X-ray inspection
174 Measurement with light waves
175 The Electron

199 Sheep Shearing

FARM WORK

199 Sheep shearing
454 Care of a Tractor
460 Repainting a frame building
458 Horseshoeing



412 Care of the New Born Baby

NURSING

412 Care of the New Born Baby
404 Feeding the Patient
MN-1511-g Taking Blood Pressure
MN-1511-i Temperature, Pulse and Respiration

In the new U. S. Office of Education series teachers have films dealing with virtually every course of study given in the nation's schools. These films are expertly made, professionally filmed, and have a tested efficiency in "showing how." Each forms a perfect supplement to a given course of study. Over 250 films and filmstrips are available now. Send for catalogs!

22,000 U. S. O. E. FILMS SOLD

Since November 1941, when the first Office of Education training films were released, 22,000 prints have been sold to war plants, vocational schools, colleges and universities, and other civilian users.

HOW TO OBTAIN U. S. O. E. FILMS

1 Order the films from your 16mm, Educational Film Dealer. (Federal funds may be available for the purchase of films. Check and find out.)

2 If your dealer does not have the films, write Castle Films, Inc.

3 Send for catalogs describing all the films now available.

4 Send in your name to be put on our mailing list for monthly data on new films.

CASTLE FILMS INC.

30 Rockefeller Plaza, New York 20 — Field Bldg., Chicago 3 — Russ Bldg., San Francisco 4

Distributor for

THE UNITED STATES OFFICE OF EDUCATION

"4-H Club and Rural Youth Act," HR-4907, proposes to promote further development of 4-H clubs and other extension work with rural youths. The proposed appropriation for this purpose is $6,000,000 for the fiscal year beginning the next July 1 following the termination of hostilities; for the first fiscal year following, $8,000,000; for the second, $12,000,000; for the third, $16,000,000; for the fourth, $20,000,000, and for each fiscal year following, $24,000,000.

Bill S-1946 would provide vocational training programs for occupational adjustment of veterans returning from military service, workers demobilized from war production plants and for other youths and adults so that individuals and the nation may attain economic stability and security. The annual sum of $97,500,000 would be appropriated under the provisions of this legislation.

College and University General Extention Act, S-1670, aims to establish a publicly supported adult education program stemming from state universities and land-grant colleges by setting up a college and university adult education extension program separate from, but supplemental to, the cooperative agricultural extension service authorized by previous acts. The appropriation authorized would be $8,000,000 for the fiscal year ending June 30, 1945; for the first fiscal year thereafter, $12,000,000; for the second, $16,000,000; for the third and annually thereafter, $20,000,000.

Act HR-5125, with amendments from the Senate, to provide for the disposal of surplus government property and plants passed the House August 22 and as Congress recessed on September 21 was in conference committee.

1945 Census of Agriculture

The 1945 census of agriculture will be conducted during January and February of the coming year. It will embody the enumeration of the approximately 6,000,000 farms in the United States. Inquiries will concern acreage, production of crops and sales of livestock during the 1944 crop year and inventories of acreage, equipment, livestock and related items as of January 1, 1945.

Farm operators are urged to have ready against the census takers' visits as accurate figures as possible covering these points. Information is kept in confidence and will be used only for statistical purposes in compiling totals for the entire country, each state, each county and minor civil divisions.

The census of agriculture is taken every five years. It provides bench-mark totals which are used by business and industry for market research and planning and by the federal government in measuring the scope of programs affecting the agricultural industry.

Incandescent Lighting Fixtures

A revision of L-212 on August 16 removed restrictions on use of metals in the utility type of incandescent lighting fixtures used in offices, stage and theater lighting, exit signs, stores and hospitals. In the new amendment, utility fixtures and industrial fixtures, between which a distinction was formerly made, were merged. Under L-212 they are subject only to the provision requiring a preference rating on sales.

In addition to the five exemptions from the preference rating provision already in the order, the following two exemptions are made: (1) exit signs of the kind required in public buildings by fire laws and (2) illuminating glassware, such as bowls, shades and globes.

Construction Order Amended

Of interest to schools and colleges in Construction Order L-41, amended August 19, are the paragraphs devoted to the installation or relocation of machinery and equipment.

It is not necessary to get W.B.P. permission to install a single piece or a group of related pieces of processing machinery or equipment, or machinery

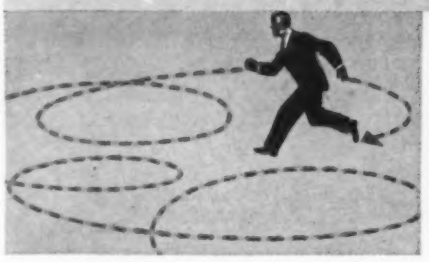
Sheldon
PLANNING ASSISTANCE
. . . can help you

School architects, administrators and teachers, aware of postwar educational imperatives, are basing school building designs on tomorrow's needs. In planning special rooms and selecting vocational and laboratory equipment Sheldon can be of unusual assistance. Sheldon will also assist you in compiling budget estimates and writing specifications. Write today — request Sheldon Planning Assistance. Without obligating you in any way Sheldon Engineers will call and discuss your problems, ideas and plans.

LABORATORY AND VOCATIONAL Furniture

E. H. SHELDON & CO. MUSKEGON, MICHIGAN

THREE CAUSES OF EYE FATIGUE IN WORKERS



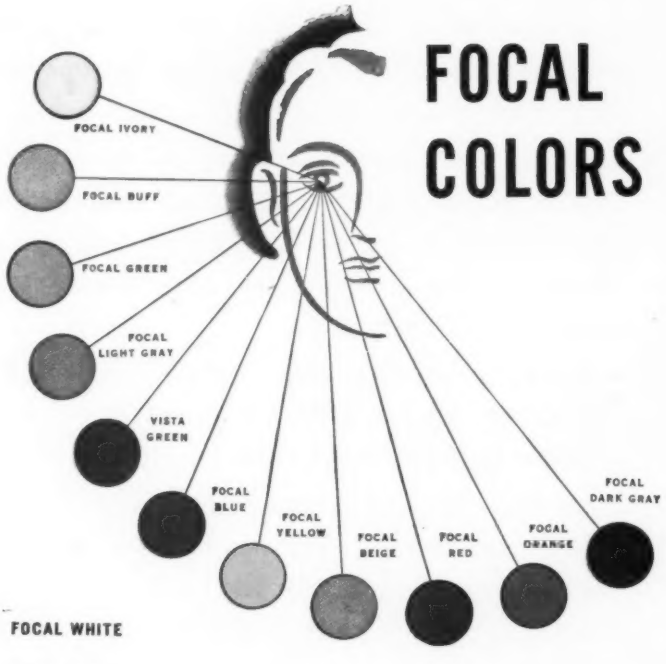
UNNECESSARY TRAVEL—Eyes have a habit of wandering. On a long monotone machine, the eye covers a great deal of unnecessary distance because there's nothing to hold it at one spot. Just as wasted steps tire out the body, so this needless travel which accomplishes nothing, tires out the eye.

TENSION—Hold out your arm, tensing the muscles. Notice how quickly they grow weary. The same thing happens to a worker's eyes when material he is fabricating is too similar in color to his machine. Wasted effort is required to differentiate between material and machine.

CONSTANT ADJUSTING—Go from a sunlit street into a moving-picture theater. For a minute you are so blind that you have difficulty finding a seat. A worker who glances up from a light-colored machine to a dark wall (or vice versa) has the same experience to a lesser degree.

COLOR DYNAMICS

A new system of using color to minimize workers' eye fatigue which will interest all teachers in trade or industrial schools.



FOCAL COLORS

• No matter what type or color of material a given machine is processing, one of these focal colors will provide a satisfactory contrast with it. Applied to the operating parts of the machine, this focal color reduces strain, eye-fatigue and accidents.

THERE is a tendency to forget that people work not only with their hands, *but also with their eyes*—and that the seven muscles which operate the movements of the eyeball get tired just like arm or leg muscles.

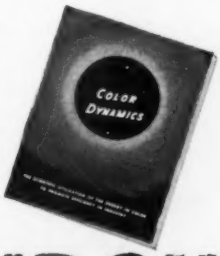
This eye fatigue leads to headaches, "nerves", digestive upsets, and depression—eventually to absenteeism and lowered production. Therefore, one important objective of Color Dynamics is to do away with the causes of eye fatigue.

1. Unnecessary eye travel is minimized by painting the critical parts of the machine in a *focal color* which focuses the worker's attention exactly where he wants it to be.

2. Tension is reduced by choosing a focal color which affords a clear contrast between the machine itself and the material being fabricated.

3. Constant Adjusting is eliminated by painting walls in front of machines in "eye rest" colors.

• A free copy of the new book "Color Dynamics" will be mailed to any teacher who sees an opportunity of fitting this system into his courses. You will find this study of the utilization of color energy both stimulating and practical. For your copy write Pittsburgh Plate Glass Co., Paint Division, Dept. NS-10, Pittsburgh 22, Pa.



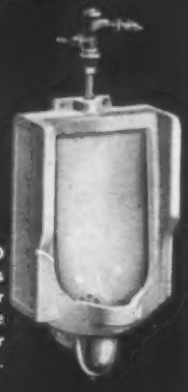
PITTSBURGH PAINTS

Pittsburgh Plate Glass Company, Pittsburgh, Pa.

PITTSBURGH STANDS FOR QUALITY PAINT AND GLASS

PROTECT THE HEALTH OF THE CHILDREN IN YOUR CARE

CE 11-660 SANTON closet. Made of vitreous china. Elongated rim. Siphon jet closet. Vacuum breaker flush valve.



CE 15-605 CORRECTO urinal. Made of vitreous china. Vacuum breaker flush valve. Can be arranged in batteries for flushing with single tank.

CE 9062 CORWITH vitreous china fountain. Sanitary angle stream jet. Vandal-proof base. Built-in strainer.

CE 754-V NORWICH lavatory. Made of vitreous china. Rectangular basin, built-in soap depression. Heavily galvanized trim. Size: 20 x 18 in.

It is important that tomorrow's citizens face the problems of peace with a strong body as well as a sound mind. The health of these future citizens depends in no small measure upon the sanitary facilities in schools where they spend a large part of their time.

Crane plumbing is designed to guard their health. Its sturdy design assures trouble-free service and the smooth, gleaming surface of vitreous china or Duraclay does not harbor germs—is easily cleaned.

Crane quality plumbing fixtures, such as those illustrated, are available for necessary replacement or modernization today.

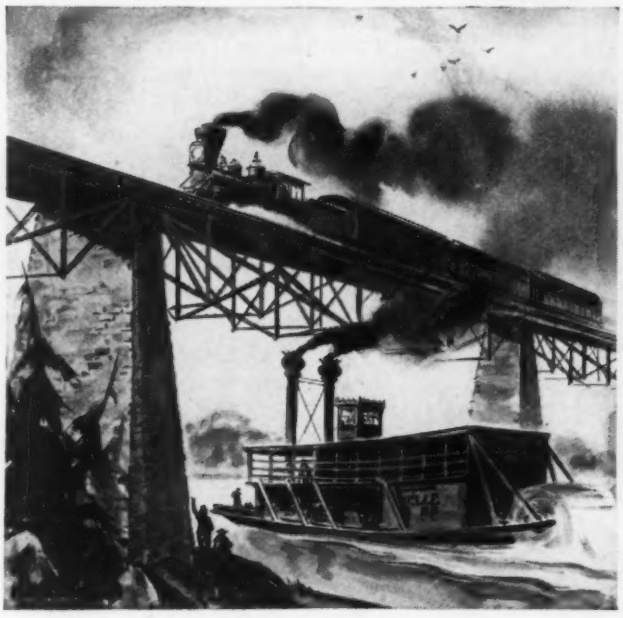
For the blueprint school you are planning, be sure that the name Crane is on the specifications for the sanitary equipment. It is your assurance of maximum service as well as maximum sanitation.

CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5

VALVES • FITTINGS • PIPE
PLUMBING • HEATING • PUMPS

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS



Miles Minutes

MOST OF THE largest cities in the U.S. are located on rivers because these winding streams are transportation routes. About twenty years before the Civil War, Mississippi steamboating was at its height. Later, when railroad builders wanted to put a bridge across the Mississippi, the rivermen objected. There were quarrels; barges and floating logs rammed into and destroyed bridge supports. An attorney, Abraham Lincoln, helped progress to win when he said that land vehicles traveling east and west had rights as well as water vehicles traveling north and south. The Iron Horse gained permission to puff *above* the chugging steamboat.

Every new form of transportation supplements the older ones and does what is impossible for its predecessors. Today, a three-dimensional vehicle, the transport plane, travels *above* all forms of two-dimensional surface transportation.

As one result, geography loses its old meaning and time units replace miles as the measurement for distances that separate all peoples, everywhere on earth. Due to the freedom of the transport plane to travel in any direction, and due to its velocity, air transportation effectively makes the whole world smaller than our original thirteen Colonies. This change constitutes a great challenge to all thinkers, especially to school teachers and administrators. Our purpose is to help them. Our periodical, "Air Age Education News," will keep you informed. Please write for a free copy.

Air-Age Education Research

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100 EAST 42nd STREET, NEW YORK 17, N. Y.

or equipment specifically rated or authorized by W.P.B. on a special form, including building alterations necessary for the installation, if: (1) the cost of the installation, including the cost or value of the machinery and equipment, does not exceed $25,000; (2) the cost of installation, excluding the cost of the equipment, does not exceed $5000, and (3) no new buildings or additions to existing buildings are constructed.

The term "processing machinery" is defined as meaning machinery or equipment directly used in the manufacture, processing or assembling of a product. It does not include such equipment as plumbing, heating or air-conditioning equipment not used directly in the manufacture, processing or assembling of the product.

Consultants Appointed for Veterans

The appointment of consulting specialists to counsel and advise the Veterans Administration on matters pertaining to the laws granting courses of vocational rehabilitation to disabled veterans and educational and training benefits to other veterans was announced September 2 by Brig. Gen. Frank T. Hines. The consultants were chosen, the administrator explained, because of their acquaintance with the nature and extent of many of these problems. They are: Robert G. Sproul, president of the University of California; Rufus C. Harris, president of Tulane University; Robert B. Stewart of Purdue University, and Horace S. Ford of Massachusetts Institute of Technology.

Water Coolers

An amendment of September 5 to schedule I of L-126 removed previous specifications as to types, sizes, capacities and number of cabinet designs for water coolers. Restrictions on use of materials remain in effect except for some relaxation on the use of copper or copper base alloy.

Don't SKID . . SLIDE . . or SLEW
Don't Get Stuck in SNOW,
MUD, SAND or on ICE

Here is an amazing device to keep wheels turning and pulling through deep snow, mud, sand, gravel or over sleet, ice, etc.

Install THORNTON *Automatic-Locking* DIFFERENTIALS on *your* school buses . . . for positive traction . . . for greater driving safety . . . for maintenance of trip schedules.

War-tested . . . easily installed . . . this differential *stops* spinning of one wheel which normally stalls a bus equipped with a conventional type differential . . . because *both* wheels *must* rotate when power is applied.

Quickly pays for itself . . . Thornton-equipped buses outperform others that skid, slip, slew or stall.

Install **THORNTON** *Automatic Locking* **DIFFERENTIAL**

TEAR OUT AND MAIL TODAY

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Coming Meetings

October—

Colorado Education Association, regional meetings: 26, 27—Denver, Pueblo, Grand Junction, Durango.
Connecticut State Teachers Association, regional meetings: 27—Bridgeport, Hartford, New Haven.
Michigan Education Association, regional meetings: 5, 6—Petoskey, Escanaba; 12, 13—Flint, Detroit; 19, 20—Grand Rapids, Kalamazoo; 26, 27—East Lansing; 26-28—Detroit.
Montana Education Association, regional meetings: 26-28—Billings, Havre, Helena, Kalispell, Wolf Point.
Nebraska State Education Association, regional meetings: 26, 27—Lincoln, Omaha, Norfolk, Kearney; 27—McCook, Holdrege, Chadron, Alliance, Scottsbluff, Sidney.
North Carolina Education Association, regional meetings: 10—Rocky Mount; 12—Goldsboro; 17—Fayetteville; 19—Greensboro; 24—Statesville; 26—Asheville.
Tennessee Education Association, regional meetings: 20—Nashville; 27—Knoxville.
Washington Educational Association, regional meetings: 13—Bellingham; 16—Seattle; 17—Tacoma; 18—Aberdeen, Centralia; 19—Longview; 20—Vancouver; 23—Walla Walla; 24—Spokane.
October 25-27—North Dakota Education Association, Fargo.
October 25-28—New Mexico Educational Association, Albuquerque.
October 26, 27—Indiana State Teachers Association, Indianapolis.
October 26, 27—Maine Teachers Association, Lewiston.
October 26, 27—Minnesota Education Association, St. Paul.
November—Kansas State Teachers Association, regional meetings: 2, 3—Topeka, Salina, Hays, Garden City, Wichita, Pittsburg.
November 1-3—Missouri State Teachers Association, Kansas City.
November 2, 3—Utah Education Association, Salt Lake City.
November 2-4—Wisconsin Education Association, Milwaukee.
November 5-11—American Education Week.
November 9-11—Iowa State Teachers Association, Des Moines.
November 9-11—New Jersey Education Association, New York City.
November 13-14—Arkansas Education Association, Little Rock.
November 16, 17—West Virginia State Education Association, Wheeling.
November 17, 18—Food Service Directors Conference, Cleveland.
November 19-21—New York State Teachers Association, Buffalo.*
November 20-22—South Dakota Education Association, Mitchell.
November 21-23—Virginia Education Association, Richmond.
November 23-25—National Council for the Social Studies, Cleveland.
December 4-8—National Recreation Congress, Atlantic City, N. J.
December 27-29—Illinois Education Association, Springfield.*
December 27-29—Pennsylvania State Education Association, Harrisburg.*
February 2, 3—American Education Fellowship, regional conference, New York City.
February 16, 17—Oklahoma Education Association, Tulsa.
February 23, 24—American Education Fellowship, regional conference, Chicago.

*Meeting of delegate assembly or other representative body only.

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BUY WAR BONDS AND HOLD THEM

A New PR-3 Ruling

The new PR-3 was issued August 22. Added to list B, of items for which blanket MRO ratings may not be used, are electronic heating generators, paper charts for recording instruments, refrigeration and air-conditioning systems and parts, except as permitted by Order L-38.

Training Program Enrollments

From July 1, 1940, to June 30, 1944, more than 13,000,000 men and women enrolled in organized training programs for war jobs. Training agencies cooperating with W.M.C. bureau of training were: public vocational schools with an enrollment of 6,562,411; the engineering, science and management war training programs in selected colleges with an enrollment of 1,558,123; the food production war training program conducted through vocational agriculture schools with an enrollment of 3,035,566; the training within industry program with an enrollment of 1,375,767 supervisors, and the National Youth Administration program with an enrollment of 772,756 in training during 1942-43.

Visual aid for war training, a unit of the U. S. Office of Education, has produced approximately 150 motion pictures and film strips, of which more than 120,000 prints have been purchased by schools and industry for use in war training programs. More visual aid units are now in production and will be available shortly. The Office of Education also administers vocational training for war production workers, the engineering, science and management war training program and the food production war training program.

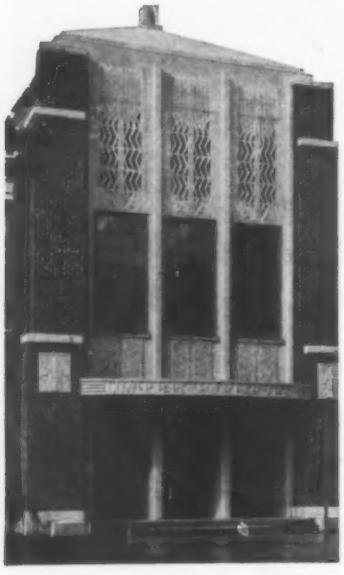
WPB-617.2 for School Construction

The new form WPB-617.2 for applications for construction of schools and colleges has superseded the old WPB-2814.2. No preliminary application need now be filed. All questions are embodied in the new form.

Electric Ranges Authorized

Production of 15,700 electric ranges in the fourth quarter of 1944 was authorized by W.P.B. September 5. Of the ranges authorized, 12,750 will be three burner apartment house models and 2950 will be standard four burner models. All of the four burner type and a few of the three burner type will be sold for essential civilian replacement purposes. The four burner stoves will probably not be on sale before the early part of 1945.

CLOVER PARK SENIOR HIGH SCHOOL
TACOMA, WASH.



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The Superintendent's Book Shelf

EDUCATION OF EXCEPTIONAL CHILDREN AND MINORITY GROUPS. Review of Educational Research. Vol. 14, No. 3, June 1944. Washington, D. C.: National Education Association.

SOCIAL AND EMOTIONAL ADJUSTMENTS OF REGULARLY PROMOTED AND NON-PROMOTED PUPILS. By Adolph A. Sandin. New York: Bureau of Publications, Teachers College, Columbia University.

SOCIAL INSURANCE AND ALLIED SERVICES. By Sir William Beveridge. New York: The Macmillan Company, 1942.

THE SOVIET UNION TODAY. New York: The American Russian Institute, 56 West Forty-Fifth Street.

DISCIPLINE FOR TODAY'S CHILDREN AND YOUTH. By George V. Sheviakov and Fritz Redl. Washington, D. C.: National Education Association, Dept. of Supervision and Curriculum Development, 1944. 50 cents.

LIBERAL EDUCATION. By Mark Van Doren. New York: Henry Holt & Co.

THE SLOAN EXPERIMENT IN KENTUCKY. By Maurice F. Seay and Leonard E. Meece. Bulletin of the Bureau of School Service. Vol. XVI, No. 4, June 1944. Lexington, Ky.: University of Kentucky.

CHANNELING RESEARCH INTO EDUCATION. By John E. Ivey Jr. Washington, D. C.: American Council on Education Studies. Vol. VIII, August 1944.

GUIDANCE AND PERSONNEL SERVICES IN EDUCATION. By Anna Y. Reed. Ithaca, N. Y.: Cornell University Press.

CITIZENS FOR A NEW WORLD. Eling M. Hunt, Editor. Washington, D. C.: National Council for the Social Studies, 1201 Sixteenth Street, N.W.

Ask the Man who has seen it in Action!

Ask the men who have operated and serviced Ampro 16-mm. sound projectors in training camps and behind battle fronts the world over.

They will tell you almost unanimously, as they have told us, that Ampro projectors have come through the gruelling tests of war with the highest record of performance.

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Aluminum Permitted for Cutlery

Aluminum is now permitted for any type of cutlery, according to W.P.B. in amending the cutlery order, L-140-a, August 31. As before, eight types of pocket knives are permitted. Aluminum is being used for handles on knives required by laboratories producing certain serums and vaccines and for guards on food processing cutlery. Cutlery manufacturers may now revert to aluminum for making noncorrosive tubular rivets, knobs on sheath knives, adjustable handles on rubber processing knives or they may develop other uses for this metal.

The amended L-140-a also states specifically that products covered by the order are subject to the "spot authorization" procedure.

Plumbing and Heating Equipment

Subject to the "spot authorization" procedure established August 15 through PR 25, eight orders governing production of plumbing, heating and cooking equipment were amended August 30 to indicate specifically in the orders themselves that the products they cover are subject to spot procedure.

The orders are: commercial dishwashers (L-248); commercial cooking, food and plate warming equipment (L-182); water heaters (L-185); oil burners (L-74); cast-iron boilers (L-187); plumbing and heating tanks (L-199); coal stokers (L-75), and domestic cooking appliances and heating stoves (L-23-c).

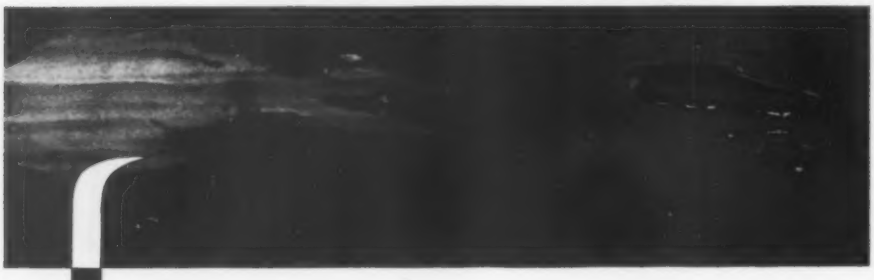
"Spot" or field authorization permits W.P.B. field offices to authorize the manufacture of products for civilian use in any area in which labor, facilities and materials not needed for war or essential civilian output are available. For the time being it is not anticipated that any large increases in production of civilian goods will be possible. This authorization, however, is part of the program to provide mechanism for partial conversion of industry from war-time to peace-time production.

Staplers and Staples

Limitation Order L-329, governing the production of hand-operated industrial and office staplers and staples, has been revoked but the use of material to make these items will continue to be controlled through allotments to manufacturers under CMP.

Hardware and Locks Eased

W.P.B. has removed restrictions on Order L-236 on the use of aluminum and zinc in builders' finishing hardware, cabinet locks and padlocks and on the use of brass in essential working parts of cylinder locks. The order was also amended to make clear that a manufacturer is permitted to produce both heavy-weight and light-weight door bumpers.



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ADMINISTRATION

New High School Curriculum in Iowa

In recognition of present curriculum trends and the demands of postwar readjustment, the department of public instruction in Iowa is planning a new curriculum for high schools. A central planning committee has been set up with W. H. McFarland as chairman.

So that the work will reflect the cooperative thinking of the school people of the state, a statewide study and discussion organization is being set up with the county as the unit and with the superintendent of each county as the temporary chairman. A meeting of all superintendents and principals in each county will be called in November at which some member of the central committee will discuss the general plan and a permanent county chairman will be elected. Study and discussion guides are being prepared.

The first year of the curriculum program will be spent in study and discus-

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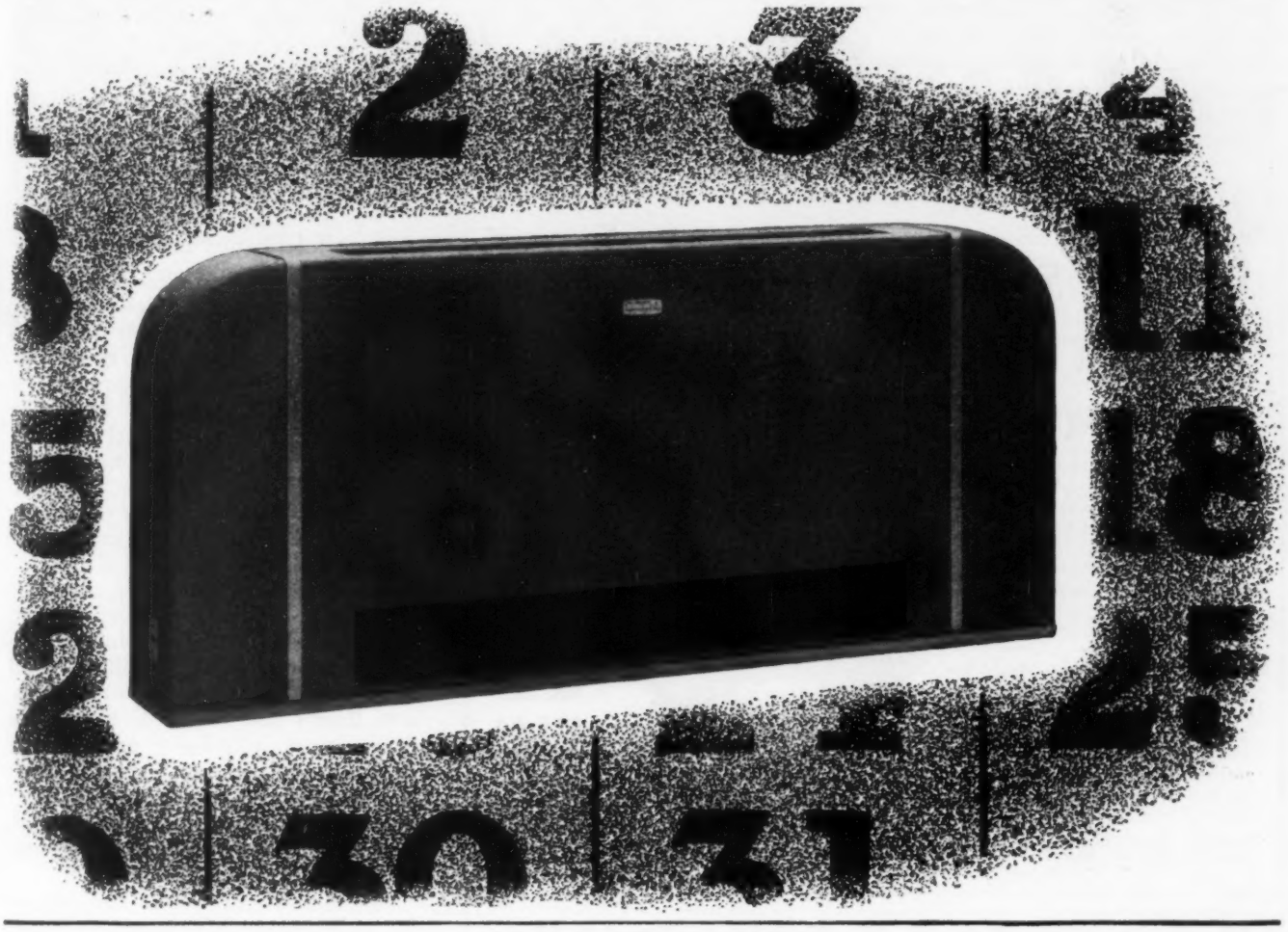

MAYBE you haven't heard the good news. You can now—TODAY—obtain the NESBITT SYNCRETIZER heating and ventilating unit in its pre-war construction: i.e., with *steel casings* and *copper radiators*. Units of this construction are available in two sizes—for small-capacity and large-capacity classrooms.

Recent releases, made by the War Production Board, have put steel and copper at our disposal for essential products. High priority ratings are, of course, necessary for purchase, but the majority of schools have these qualifications.

Plan now to have a modern, healthful heating and ventilating unit in every classroom. The NESBITT SYNCRETIZER is the unit for tomorrow *today*.

ARMY E NAVY

NESBITT *Syncretizer Unit Ventilator*

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sion, with the county groups offering suggestions to be used by the central committee and later by various production committees made up of school and college people, who will prepare the curriculum materials.

Strayer Heads California Study

The 1945 session of the California legislature has appropriated $20,000 to the state reconstruction and reemployment commission "for the purpose of making a study of the administration, organization and financial support of the public school system of the state."

The study will be under the direction of Dr. George D. Strayer and will work under the general supervision of Col. A. R. Heron, director of the reconstruction and reemployment commission, the readjustment education commission and the state department of education. Selected representatives of public education and business, together with the local members of the state legislature, will be invited to the preliminary regional conferences.

Teachers Union Resolutions

The American Federation of Teachers, A. F. of L. affiliate, recently called on the federation to cooperate in drafting a bill for Congress to provide funds to equalize educational opportunity. It would have funds allocated to the states on the basis of need, the money to be administered by state authorities. The resolution also called for establishing a minimum teacher's salary of $1500 with increases based on experience and training.

Another resolution called on organized labor to fight to cut off federal educational funds from communities requiring teachers to sign agreements not to join any labor union, the so-called "yellow dog" contract.

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Unrivalled for teaching Global Georgraphy in preparing for a post-war world. Especially designed to teach great circle routes. The Horizon Ring print is divided into miles, degrees and hours. This globe makes it simple and easy to measure distances and flying time for bomber and transport types of planes. The globe ball may be lifted from its mounting. Enables one to hold the World in his lap and study the world at will. See the top of the world where he is and not the North Pole.

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POSTWAR EDUCATION

Postwar Information Exchange, Inc.

Establishment of the Postwar Information Exchange, Inc., has been announced by the newly elected chairman, Evans Clark, executive director of the Twentieth Century Fund. The organization is made up of staff members of more than 40 research and educational agencies dealing with national and international postwar problems and is a means of avoiding duplication and of increasing the effectiveness of public educational programs.

Its *Postwar Information Bulletin*, which is to be published monthly, will make available the pooled information of the membership which will be useful to program chairmen, teachers, discussion leaders and others in stimulating mass interest in postwar problems. It will select and describe materials which are most valuable for group study, make suggestions for their use and provide an exchange of ideas on new technics and methods in popular education.

Offices of the exchange are located in the Woodrow Wilson Memorial Library, 8 West Fortieth Street, New York City 18.

Planning Postwar Education

To meet postwar educational demands of returning veterans, national and regional voluntary organizations of educators and laymen are planning ways in which member schools and colleges may work effectively toward this end.

E. V. Hollis of the U. S. Office of Education said that under the leadership of the American Council on Education the six regional associations for accrediting schools and colleges and the various accrediting associations for professional schools are working cooperatively on a plan for awarding credits counting toward graduation for work done while in the armed forces.

Other national voluntary groups are helping member institutions plan improvements in counseling and guidance, as well as administrative and curricular

"... and how are things going with BRITANNICA JUNIOR?"

THEY'RE GOING unusually well, thank you.

MORE SCHOOLS BOUGHT MORE SETS of Britannica Junior last school year than in any other in the history of the Educational Department.

WALTER YUST, Editor-in-Chief of Encyclopaedia Britannica as well as of Britannica Junior, presents, in our newest printing, the splendid work of his greatly expanded staff. We're proud of what he has accomplished.

CHANGES BETWEEN PRINTINGS are continuous with us and every new printing contains new revisions, new articles, new pictures.

THE PURPOSE OF BRITANNICA JUNIOR is becoming increasingly well-known . . . that it shall be a true encyclopaedia devoted exclusively to the interests and needs of elementary school-age children.

DEMONSTRATIONS TO CHILDREN of how to use a reference-work index is one of the services rendered by our representatives right in the classroom. May we tell you about this service?

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SPEAKING OF THE INDEX of Britannica Junior, it is the key to 3600 main articles, contains 20,000 index entries and more than 50,000 references. Its great popularity with teachers is due to the fact that learning to use an index is a fundamental study skill and the Index of Britannica Junior helps greatly to develop that skill.

GOOD STUDY HABITS are developed in the child who uses Britannica Junior because in doing so he learns how to use various reference materials . . . an index . . . an atlas . . . as well as independent source material.

CURRICULUM STUDY continues to be a major concern of Britannica's editorial staff . . . a study reflected in each new printing and rapidly increasing in value as more and more teachers give us the benefit of their very welcome suggestions.

THE BRITANNICA JUNIOR UNITS OF STUDY are 20 in number . . . are bound separately . . . and a complete set goes with each set of Britannica Junior.

THE COST of Britannica Junior, you know, is less than most other juvenile encyclopaedias. May we send you *more* information, including material about the Britannica Book of the Year? No obligation of any kind, of course.

EDUCATIONAL DEPARTMENT • **ENCYCLOPAEDIA BRITANNICA**

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changes to meet veterans' needs. Doctor Hollis pointed out the futility of planning, however excellent, at the national level unless individual schools accept such planning and share in this over-all policy determination.

On the state level of planning for postwar educational needs, New York, Ohio and Kentucky are doing noteworthy jobs in conducting state surveys of their individual educational situations. An inventory is being made of the nature and amount of available educational facilities, the uses to which they are normally put and the postwar uses to which educators are willing to put them.

A second survey which each state group needs is a forecast of the nature and size of the educational load it will have as a result of veterans resuming educational programs. Such a forecast, Doctor Hollis points out, at the present stage must be based largely on the opinion of the veteran as to his postwar educational and vocational plans. This opinion can be supplemented by certain control data, such as the educational level of the veteran when he or she entered the armed forces.

Plans for polling a representative sampling of members of the armed forces for their opinion as to future educational and vocational plans obviously must be done by the armed services with such assistance as they may obtain from agencies interested in the education, retraining and reemployment of veterans.

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MISCELLANEOUS

Leads in Tin Can Salvage

Pennsylvania school children collected 37,000,000 tin cans for the salvage drive in the six months ending May 31, an average of 90 cans per pupil. The only state in which schools are fully mobilized on a statewide basis for the drive, Pennsylvania leads all other states in the collection of tin cans. The drive is being resumed this fall and a state championship plaque will be given to the school with the highest collection at the end of the school year.

Health Courses in New York

Eighth grade pupils in junior high schools and tenth and eleventh grade pupils in senior high schools of New York State were required to enroll in health courses this fall, receiving 165 class periods of instruction in personal health practices. A syllabus, representing two years' work by experts in the field of health and education, has been supplied to schools. The New York State Science Teachers Association charges that the courses are medieval and "may turn back the clock of education at least a thousand years."

Aids to Aviation Education

The aviation education service of the Civil Aeronautics Administration has assembled a collection of laboratory equipment for use in schools offering aviation courses as part of the curriculum. Many of the models can be built in school workrooms, others can be bought from manufacturers and others are sample salvage units. The collection, now open to teachers, is on display in the Department of Commerce Building, Washington, D. C.

The training aids include engine, flight and navigation instruments; weather maps and weather "models"; sectional charts with typical navigational problems of pilotage; oversized working models of navigational instruments for demonstration purposes. A manual is being prepared by the C.A.A. giving specifications and instructions for the building of models.

Geographic Bulletins Ready

The first issue of the 1944-45 National Geographic Society school bulletins will be available to teachers, librarians and advanced students by October 2. The bulletins, which are published for thirty weeks of the school year, contain five factual articles and seven illustra-

A SCHOLARSHIP OPPORTUNITY FOR YOUR STUDENTS

The creative scientists of tomorrow—the men and women who will add to the world's advancement through science—are among the boys and girls *now* in your classrooms.

Through the Fourth Annual Science Talent Search your teachers have the opportunity to help them toward their goal.

Forty boys and girls, selected on a competitive basis, will be invited to the Science Talent Institute at Washington, D. C. with all expenses paid. They will share in $11,000 in scholarship awards ranging from $100 to $2400.

They will attend scientific lectures, visit places of interest, meet famous scientists. Winners come from graduating classes with as few as two students, and as many as eleven hundred. There is equal opportunity for all.

In the past three years *every one* of the winners and *more than* 500 Science Talent Search contestants who received honorable mention were offered scholarships by leading colleges and universities.

The Science Talent Search is conducted by Science Clubs of America. Westinghouse sponsors and makes it financially possible as a contribution to the advancement of science in America.

Examinations will be held December 1. Mail coupon for full information. Westinghouse Electric & Manufacturing Company, Pittsburgh 30, Pa.

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"SCIENTISTS FOR TOMORROW," a 16-mm. sound motion picture shows how the Science Talent Search is conducted. Runs 20 minutes. Loaned free through School Service, Westinghouse Elec. & Mfg. Company, 306 Fourth Ave., Pittsburgh 30, Pa.

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Please tell me how I can arrange to have my abler seniors participate in the Fourth Annual Science Talent Search. I have (Number)_____ students who may take the examination.

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School Address

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NS 104

Detroit Public Library

tions or maps from material collected from the travel experience of National Geographic staff men. Present paper restrictions have limited the subscription list of the bulletin and only a few hundred subscriptions above the 34,700 of last year will be accepted.

Schools an Issue in Guatemala

A demand for the liberalization of education was a major issue in the revolution which took place in Guatemala this past summer. Gen. Jorge Ubico, who was overthrown by Gen. Federico Ponce, had regimented and militarized the schools. Two of the first acts of the new head of the government were to cancel the tuition of students in arrears and abolish tuition in a number of schools.

School Accident in Chicago

An 11 year old girl suffered a serious head injury when a square yard of plaster fell on her in a classroom at the Yale Elementary School, Chicago. The board of education disclaimed liability for the accident in the 57 year old building and made no offer to share the hospital expenses with the child's mother, a war worker and the sole support of four children.

This school, which is attended by 700 pupils, was branded as a firetrap 15 years ago by members of the school's P.-T. A. who asked for a new building. In 1929 a $3000 fire swept the building. After part of the school was condemned for settling floors, a new building was proposed for inclusion in the 1930 building program, but the plan was dropped. No new additions have been made to the school since it was first built, although $30,000 has been spent for repairs in the past few years.

The head architect for the board of education states that the school should be razed. It is one of the 30 or 40 non-fireproof schools in Chicago which have been listed for replacement in the post-war building program.

Mrs. Walter F. Heineman, member of the board of education, is demanding an immediate investigation of safety conditions in the city's decrepit school buildings.

Pearl Harbor Day

Pearl Harbor Day, says the U. S. Treasury, will be the closing date for many school war bond campaigns to finance planes, landing craft and Army mobile equipment as part of the schools-at-war program. It will also mark the beginning of the school drive to make war stamps and bonds the war-time Christmas gift.

War Children Healthy

After a study of 8000 school children at Hagerstown, Md., covering the period since 1939, the U. S. Public Health Service finds that war-time living conditions, including rationing, have caused no increase in diseases among American school children. "War or peace, children have the same diseases," the report said. The service also made a comparison of health records of 225 recent draft rejectees with their health records when they were school children and discovered that many of the causes for rejection, especially defective dentition and vision, could have been spotted while they were attending school fifteen years ago.

Are We Teaching Escape?

In blaming chronic alcoholism partly on education, Dr. A. J. Carlson, University of Chicago physiologist, says that modern training is not preparing young people to meet the world as it is. Speaking as president of the Research Council on the Problems of Alcohol at the convention of American Association for the Advancement of Science which met recently in Cleveland, Doctor Carlson said that current education is by means of dictation and play teaching escape rather than by mastery and understanding.

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THREE OF THE EIGHT SUBJECTS

"China's Home Front"—vividly presents the agriculture, commerce, industry and home life of our courageous far-eastern ally. To be released in October.

"Miracle of Moscow"—presents the inside story of the organization that has given the Soviet armies their morale and tremendous driving power. To be released in November.

"Glass"—(in glorious Technicolor)—portrays the history of glass-making from the earliest days. Release date to be announced later.

8 SLIDEFILMS (About 200 Pictures) $2.00

The non-profit visual aid service offered by Coronet Magazine last year received such enthusiastic acclaim that it will be continued through the coming school year.

This service makes available, on slidefilms and in reprints, selected subjects from the "Picture Story" section of Coronet Magazine—ideal for schools, clubs and churches.

The slidefilms, produced by the Society for Visual Education, Inc., can be shown with any standard 35 mm slidefilm projector. (S. V. E. Projectors are again available.) Titles of three of the eight subjects are given below. Succeeding subjects will be announced later. The eight slidefilms will cost only $2.00. Reprints of the "Picture Story" cost 1c each with a minimum order of 25.

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------Subscriptions for the 8 CORONET slidefilms @ $2.00 for the entire series.

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"If more iron and stoicism were put into the training of our youth," Doctor Carlson said, "the escape of the adolescent and the adult into alcoholic drinks and what have you might be less frequent and less disastrous." He urged that 5 or 10 per cent of the revenue paid by the liquor industry be turned into a fund for research into the problem.

Negroes in Missouri

The past summer St. Louis University admitted five Negroes to its summer session and the state constitution, now being rewritten, permits White-Negro schools by act of legislature when local districts request them. Meanwhile, at the University of Missouri, 77.5 per cent of 360 students polled favored admission of Negroes either as regular students, graduates or students in professional schools.

Studies Compulsory Military Service

A comprehensive study of the historical backgrounds of compulsory military service is being made by the Committee on Youth Problems of the American Council on Education to help decide the question of continued universal military conscription. George Fort Milton, historian, economist and former editor of the *Chattanooga News,* will head the study. Conscription experiences in France, Germany, Russia, Switzerland, Sweden, Japan and the United States will be analyzed with particular attention given to the social impacts on government and education at all levels. The report will be published in December.

Correction

Attention of readers is called to two errors that appeared in the August editorial entitled "Horses and Rabbits Again." The first sentence should have read: "Some years ago (June 1937) an editorial in The NATION'S SCHOOLS called attention to the statistical inaccuracy of dividing the total sums spent annually by the public schools for *teachers' salaries* by the total number of teaching positions and labeling the quotient 'the average annual teacher's salary.'" In the fourth paragraph, the national average teacher's salary should have read *$1550* instead of $1259.

BEFORE the war, Heywood-Wakefield had the smartest, most practical, efficient and flexible tubular school furniture in America. Since then, we learned *even more* about tubular stock . . . how to build tubular steel into Troop Gliders after stringent Army blueprints! We learned, too, how to work with different weights and grades of tubing . . . with unusual alloys of steel and other metals.

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● Samples of Heywood's postwar tubular furniture are now being built. They will be something to see . . . to wait for . . . something to fully justify Heywood's sound position in the school furniture field!

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FINANCE

School Boards Fix Pay Raises

Each of Ohio's 1600 local school boards is determining for itself how much of a pay increase to grant its teachers since about $8,000,000 in state funds has become available after a special legislative session, according to Kenneth C. Ray, education director.

Mr. Ray's recommendation would provide each school board with $8 per pupil in addition to its regular state grant and would permit the local board to do as it wished with the additional funds. There are slightly more than 1,000,000 pupils in the state.

It is expected that pay raises will average from $175 to $200 a school year. The final determinant will be the conditions which must be met in each district to stop the drain on teacher supply.

Salary Advances in North Carolina

The average salary of North Carolina teachers doubled in the ten year period ending in 1934-44. In 1933, the depression year, the average teacher received $560.22 in comparison to the average salary of $1220 of last year. Salaries paid to Negro teachers from state funds have almost tripled from $393.80 in 1933 to $1125 in 1944.

Cost of Education in Detroit

To teach a child in the Detroit public schools, the costs, which vary according to the type of training the child receives, are as follows: elementary, $106; anemic, $204; blind, $290; crippled, $384; deaf, $526; special A, $173; special B, $195;

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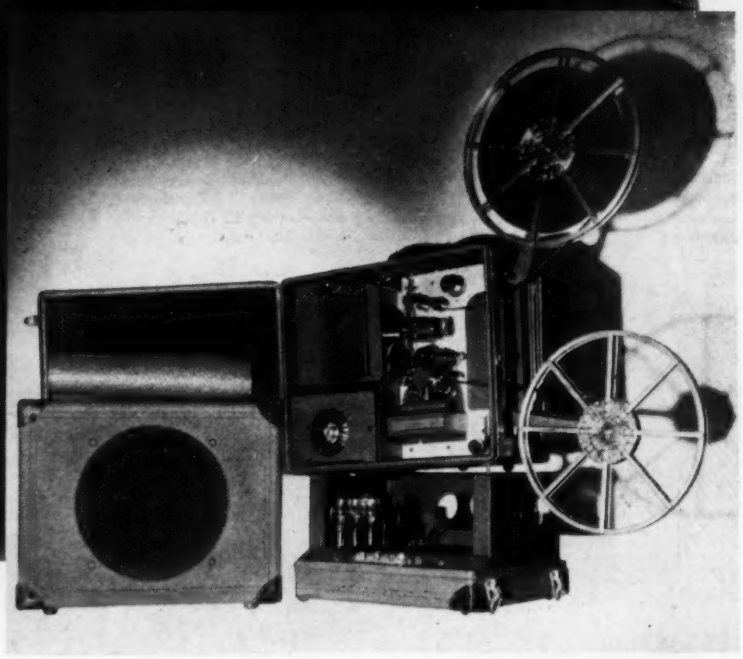

YOUR turn has come to place your order for the sound motion picture projector you've wanted—and needed—perhaps badly.

But don't be too leisurely about doing so . . . A LOT OF PEOPLE HAVE BEEN WAITING TO GET THE DEPENDABLE, PRECISION DeVRY—and orders placed now assure priority when it comes to delivery.

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And when it comes to *sound*, DeVRY gives you theater-quality reproduction—its full, clear musical tones and distinct speech leave nothing to be desired.

You who have been longing for the finest projection equipment made—that is simple and easy to operate, to clean and maintain—a "*scratch-free*" instrument that will project your valued films SAFELY, time after time, day-in, day-out—fill out and mail the coupon below. Colorful literature will be sent you—FREE.

- DeVRY Model 16—1966 Sound-on-Film Projector shown above has 1,600-ft. film capacity, and projects either sound or silent film. *Equipment worth waiting for.*
- Projector is housed in its own "blimp" or silencing case. Another *balanced* case contains 12-inch Electro-Dynamic Speaker and powerful 25-watt Amplifier. Speaker case provides ample room for films and accessories. *Extremely portable!*
- Amplifier and Speaker can be used separately, with microphone or phonograph, as Public Address unit for public speaking, dramatic classes, athletic and other events. *Double value.*
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- You get the same high-quality materials, the same craftsmanship, the same meticulous skill required for DeVRY 35-mm. theater equipment.
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ungraded, $195; preparatory, special, $172; epileptic, $450; intermediate, $160; secondary, $156; technical, $196; commercial, $138; vocational and continuation, $307.

PUBLICATIONS

Learning to Live for Today and Tomorrow. A pictorial interpretation of the public schools of Highland Park, Mich., including Superintendent H. L. Shibler's annual report. Picture groupings show the four major goals set by the Educational Policies Commission, namely, the objectives of self-realization, human relationship, economic efficiency and civic responsibility.

Principles of Planning the Homemaking Department. By Anna Belle Robinson and William Hunt Scheick. A 28 page illustrated bulletin presenting an ideal plan for a homemaking department consisting of a one room "shell" from which deviations can be made to meet the needs of various communities. Urbana, Ill.: University of Illinois. 35 cents.

A Design for General Education. A report prepared by an American Council on Education committee headed by T. R. McConnell, University of Minnesota, at the request of the U. S. Armed Forces Institute, presenting an educational program for returned service men and women who will have a more mature point of view than high school pupils or junior college students. Twelve specific courses are proposed. Washington 6, D. C.: American Council on Education, 744 Jackson Place. $1.25.

Steel Fights for the Nation. An illustrated 32 page pamphlet describing what underlies the United Steelworkers' case before the War Labor Board. Washington 6, D. C.: Congress of Industrial Organizations, 718 Jackson Place, N.W. 15 cents.

The Negro in America. By Maxwell S. Stewart. A 32 page pamphlet summarizing "An American Dilemma" by Gunnar Myrdal, Swedish social economist, giving facts useful in creating an understanding of the Negro and in solving the Negro-White problem. New York City 20: Public Affairs Committee, 30 Rockefeller Plaza. 10 cents.

Arithmetic. Iowa Elementary Teachers Handbook, Vol. VIII. Prepared by a committee headed by Herschel K. Bennett, state department of public instruction, and a subcommittee headed by Herbert F. Spitzer, assistant professor of education, State University of Iowa, emphasizing understanding as the method of approach and the social usefulness of arithmetic. Des Moines 19, Iowa: Iowa Department of Public Instruction.

Essential Facts About Pre-Induction Training. A bulletin in which the War Department, in cooperation with the U. S. Office of Education, answers the question: "How can teachers and school administrators help prepare boys for military service in the period prior to induction?" Copies obtainable from pre-induction training officers in the various Service Command headquarters.

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● **WESTONE** is a chemical floor treatment in liquid form which is transparent and stainless. Its ingredients penetrate and blend with the floor material to form a hard-wearing waterproof surface which helps to prevent grit, sand or dirt from being ground into the floor by foot traffic. Westone is not a floor oil and will not become gummy or sticky. It penetrates rapidly and evenly and, unlike many other floor treatments, *actually becomes a part of the floor material itself.*

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NAMES IN NEWS

Superintendents

Frederic W. Strong, Binghamton, N. Y., has been elected superintendent of the second supervisory district of Broome County, New York.

Frederick F. Quinlan, supervising principal of Katonah High School, Katonah, N. Y., has become superintendent of schools at Lake Forest, Ill.

Samuel E. Fleming has been appointed acting superintendent of Seattle public schools succeeding **Worth McClure** whose appointment as superintendent of schools at University City, Mo., was announced last month.

J. R. Mounce, former superintendent of schools at Garner and at Jefferson, Iowa, has been elected superintendent of schools at Clinton, Iowa.

Wendell C. Larson, superintendent of schools at Chatfield, Minn., has been named superintendent of schools at Appleton, Minn. He will be succeeded by **C. P. Mickelson,** former superintendent at Mabel, Minn.

Dr. William Slade, superintendent of schools at Glendale, Ohio, has succeeded **Dr. Arthur K. Loomis** as superintendent of schools at Shaker Heights, Ohio. Doctor Loomis is the new director of the school of education at the University of Denver.

A. B. Herring, who has been superintendent of schools at Prague, Okla., for twelve years, has retired. He has been in the Oklahoma school field for thirty-nine years.

Leroy Alford has been elected school superintendent of Buena Vista schools in Colorado. He was an instructor at Leadville, Colo.

Kenneth F. Lohn, former superintendent of city schools, Lemmon, S. D., has

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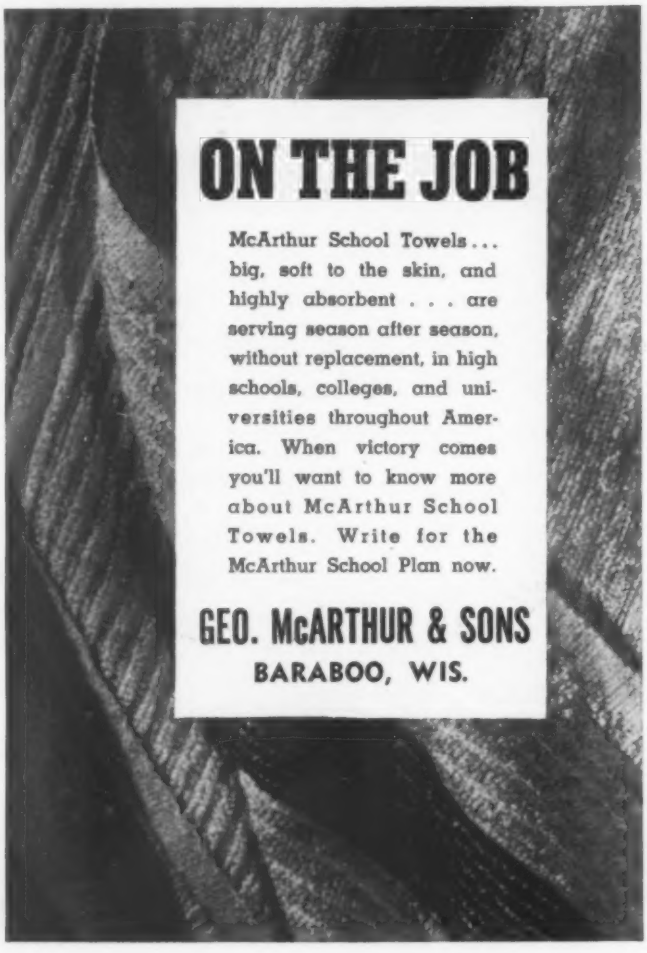
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accepted the position of superintendency at Crookston, Minn.

Fred B. Painter, assistant superintendent of schools at Ithaca, N. Y., has been appointed superintendent of schools at Gloversville, N. Y. Mr. Painter formerly served as associate supervisor of elementary education in the New York State Department of Education.

Edwin L. Reichert is the new superintendent of District 107 (elementary) at Highland Park, Ill. **A. E. Walters,** dean of boys, has been named acting superintendent of the Highland Park High School district.

William E. Bensley, superintendent of the fifth supervisory district of Erie County, New York, has retired after fifty-one years of educational service. After teaching in Yorkshire and Coldern, N. Y., Mr. Bensley became school commissioner in 1902 and later district superintendent.

Principals

F. Marshall Worell, head of the Englewood Junior High School science department at Englewood, N. J., and director of the city's visual education program, has been selected principal of Roosevelt School at Englewood to fill the vacancy caused by the death of **H. Edith White.**

William W. Reynolds, principal of Haddonfield Memorial High School, Haddonfield, N. J., has been elected supervising principal of the city schools. He succeeds **Dr. Everett C. Preston** who has accepted a position with the New Jersey State Department of Education. **Robert L. Foose** will be principal of the high school.

Hilton C. Buley, superintendent of schools at Gloversville, N. Y., has been named supervising principal of schools at Bound Brook, N. J., succeeding **Albert S. Davis** who retired in June.

George E. McCallister, principal of Forest Hills School, Anderson, Ind., is the new principal at East Ward School, Wabash, Ind.

John L. Conant, high school principal at Divernon, Ill., has been named principal of David Prince Junior High School, Jacksonville, Ill.

Seavey D. Morse, former principal of Brookfield High School, Brookfield, Mass., has been appointed principal of Woodstock Academy, Woodstock, Conn. He succeeds **William A. Simpson** who has resigned.

Harold A. Rice, principal of the junior high school at Needham, Mass., has accepted the position of headmaster of the Keene High School, Keene, N. H. He succeeds **Raymond E. Claflin** who will become headmaster of the high school at Danbury, Conn.

ONCE UPON A TIME it almost seemed as if the school curriculum *had* to be founded on drudgery. But modern audio-education has proved that *learning can be fun*—and all the way from kindergarten to P. G.!

Many schools are already using radio and phonograph most successfully as teaching aids in social science, literature, foreign languages, music, physical education, and other subjects. At this war's close, new and improved Stromberg-Carlson sound equipment will be available to bring even greater advantages to audio-education—to facilitate both the teaching and learning processes, and to help good teachers to do an even better job.

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Dr. Thurman H. Bare has been elected principal of North Plainfield High School, North Plainfield, N. J. Doctor Bare was formerly superintendent of schools in Montpelier, Vt.

Martin E. Cordulack, for eighteen years teacher and principal at Cicero, Ill., has been named principal of Elmwood School, Elmwood Park, Ill. He succeeds **George B. Calhoun** who has been named superintendent of Elmwood Park schools.

Ralph H. Demorest, principal of Scott High School, Toledo, Ohio, for thirty-one years, has resigned because of ill health. **Richard J. Langstaff,** history and economics instructor and dean of boys at the school, will succeed him.

Arthur J. Dows has been appointed principal at Lincoln, Mass., to replace **Clark L. Dexter,** who has been commissioned an ensign in the Navy. Mr. Dows has been principal of Dennis Consolidated School on Cape Cod.

Clayton D. Fox, Jordanville, N. Y., will be the supervising principal of Rockland County High School, Haverstraw, New York.

Miscellaneous

Leo M. Hauptman has resigned as director of secondary education and psychologist in secondary schools at LaPorte, Ind., to become registrar and director of student personnel at Kalamazoo College.

Willis A. Sutton has resigned as secretary of the Georgia Education Association and is now with the speakers' bureau of the *Reader's Digest.*

Walter Tatum, vice principal at Pacific Beach Junior High School, San Diego, Calif., has been named director of child care centers for the San Diego area. Mr. Tatum was former assistant superintendent of schools at Fort Collins, Colo., and principal at Rocky Ford, Colo.

Sister Mary Samuel Boyle, O.P., has been appointed president of Albertus Magnus College, New Haven, Conn., succeeding **Sister M. Uriel Conlon, O.P.,** who is to have charge of the St. Lawrence School in Pittsburgh. Sister Mary Samuel has been professor of English at the college for four years.

Kenneth E. Anderson, superintendent of schools at Askov, Minn., has resigned to accept the position of science instructor at the University High School, University of Minnesota. He will also teach at the university's college of education during the summer sessions.

Dr. T. A. Frick has been named dean of Lincoln Memorial University, Harrogate, Tenn. Doctor Frick has been head of the department of natural science and dean of men at the university since 1941.

B. R. Walker, principal of Senior High School, Little Rock, Ark., has resigned to become a member of the state board of vocational education.

Dr. Hugh G. Noffsinger has resigned as president of Virginia Intermont College, Bristol, Va. Doctor Noffsinger is 70 years old and has been president of the college for thirty years.

Deaths

Norman Arthur, principal of Nolan Intermediate School, Detroit, since 1927, died recently at the age of 56 years. A World War veteran, Mr. Arthur began teaching at 17 in rural schools near Caseville, Mich., going to Detroit upon his graduation from Michigan State Normal College in 1910. He had served as trustee of the Teachers Retirement Fund and as district chairman of the Michigan Education Association.

Dr. William V. Casey, superintendent emeritus of public schools at Boulder, Colo., died August 31. Doctor Casey was elected superintendent of Boulder public schools in 1892 and retired in 1934.

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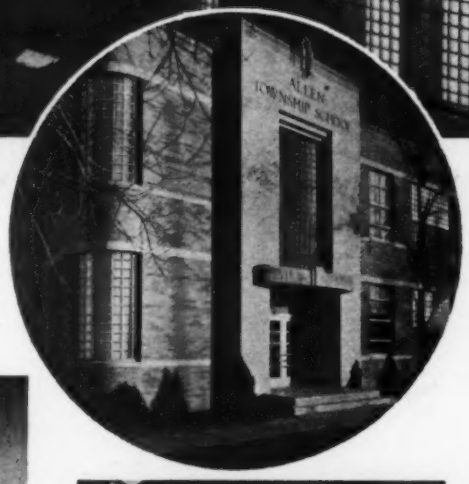
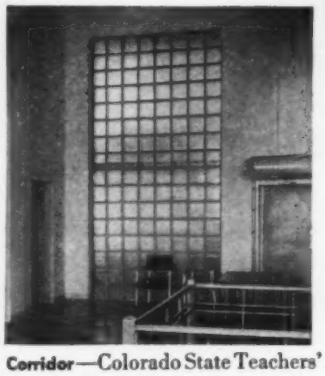
WHY MODERN SCHOOLS *"Daylight with Insulux"*

Swimming Pool—Denby High School, Detroit, Michigan.



Entrance—Allen Township School, Williston, Ohio. Architect—C. H. Shively, Freemont, Ohio.



Corridor—Colorado State Teachers' College, Greeley, Colorado. Architect—F. W. Ireland, Greeley, Col.

Kindergarten—New Central School, Howell Township, N. J. Architect—Aylin Pierson, Perth Amboy, N. J.

• • •

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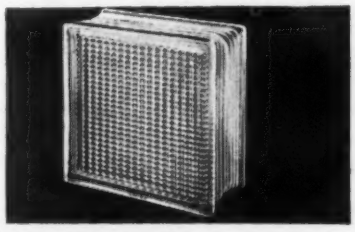

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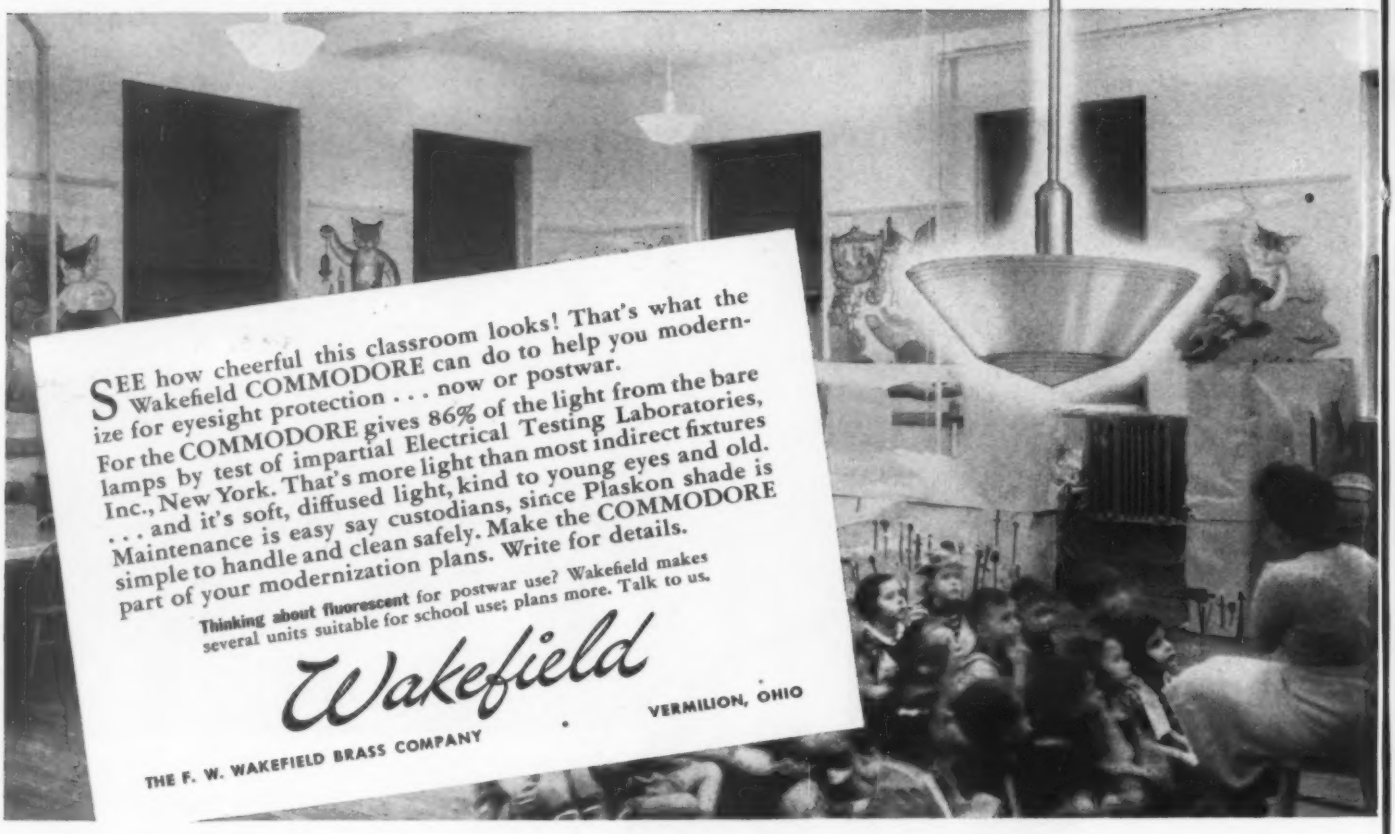
SEE how cheerful this classroom looks! That's what the Wakefield COMMODORE can do to help you modernize for eyesight protection . . . now or postwar.
For the COMMODORE gives 86% of the light from the bare lamps by test of impartial Electrical Testing Laboratories, Inc., New York. That's more light than most indirect fixtures . . . and it's soft, diffused light, kind to young eyes and old. Maintenance is easy say custodians, since Plaskon shade is simple to handle and clean safely. Make the COMMODORE part of your modernization plans. Write for details.
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SCHOOLS

gratefully acknowledges the Award "*in recognition of outstanding excellence in the industrial publications field*," of the National Council of Industrial Editors' Associations presented to this magazine at the third annual wartime conference this year in Cleveland.

THE NATION'S SCHOOLS PUBLISHING CO., INC.

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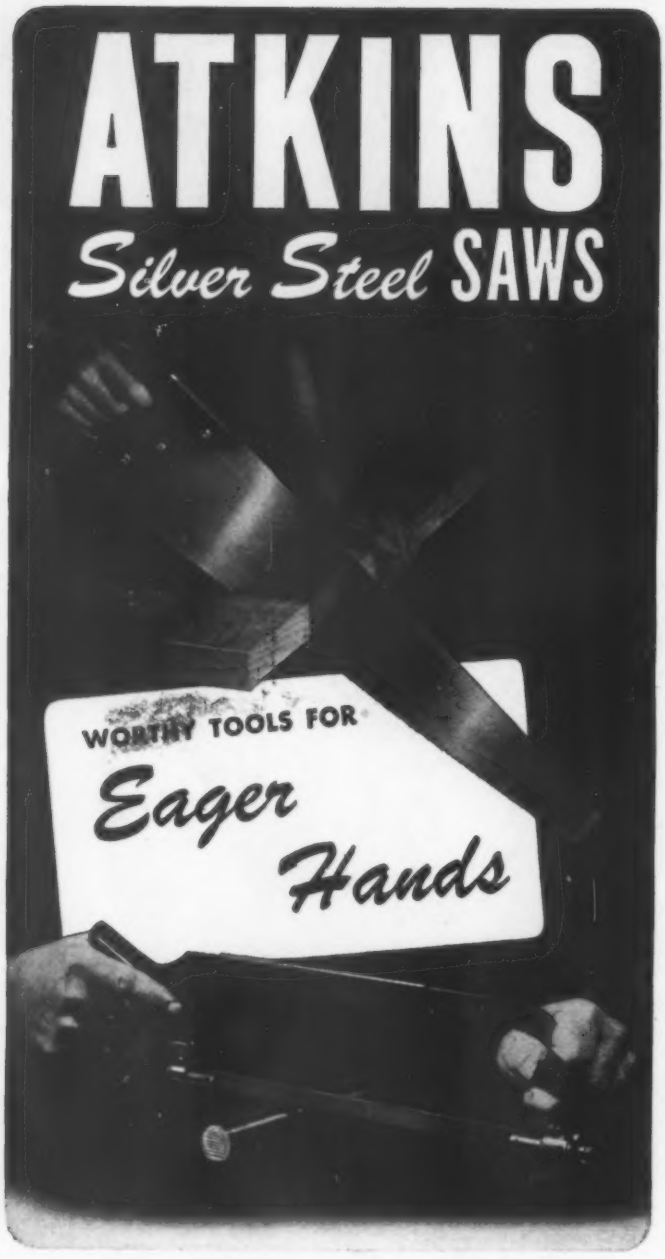
Silver Steel SAWS



● For a pupil just starting manual training, the craft he chooses represents a new world to conquer. His eagerness to win mastery over that craft, can be stimulated and retained only by access to good tools. If, like Atkins Silver Steel Saws, they are correctly designed, they make it easier for him to turn out satisfactory work even in the early stages. If, like Atkins Saws, they hold a keen cutting edge for longer periods, they make learning a pleasanter task. And if, like Atkins Saws, they can stand up under the rough and ready handling to which school equipment is often subject, they're easy on the budget.

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The right way of filing and setting saw teeth illustrated in detail on 19" x 25" wall chart. Send for a free copy today.

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THE effectiveness of Mercurochrome has been demonstrated by more than twenty years of extensive clinical use. For professional convenience Mercurochrome is supplied in four forms—Aqueous Solution in Applicator Bottles for the treatment of minor wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

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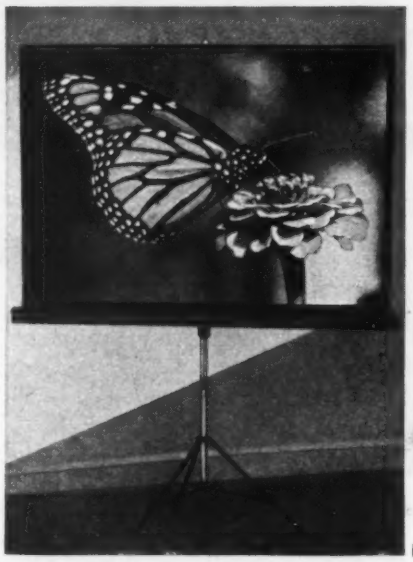

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Sizes: 40" x 40" and 52" x 72"

A special ruling of the War Production Board permits us to offer a limited quantity of the above sizes of Challenger Screens now available for sale without priorities. Orders will be filled in the sequence in which they are received and until the supply of screens is exhausted. These sizes are in addition to the 30" x 40" Challenger which was recently made available without priorities in limited quantities. Ask your visual education dealer to forward your order immediately.

You can buy with confidence from the dealer who displays this sign.

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Dept. 10NS, 2723 N. Crawford Ave.
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Bring Peace Earlier—Buy EXTRA WAR BONDS NOW!

SUNFILLED makes it *Easy*...

To these pure, concentrated
ORANGE and GRAPEFRUIT JUICES
you simply add water as directed
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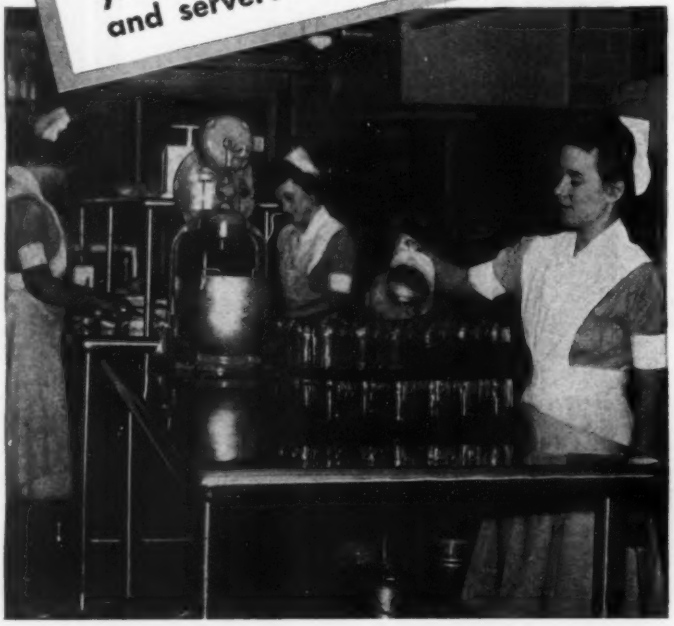

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Only one 28 oz. container of Sunfilled is needed to prepare fifty-six 4 oz. servings of delicious, healthful juice that is comparable in flavor, body, nutritive values and vitamin C content to freshly squeezed juice of high quality fruit.

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Substantially reduces your cost per serving. Every ounce can be satisfactorily used without waste. Avoids perishable fruit losses due to spoilage, shrinkage or damage. Users need never be concerned with scarcity of fresh fruit or high off-season price fluctuations.

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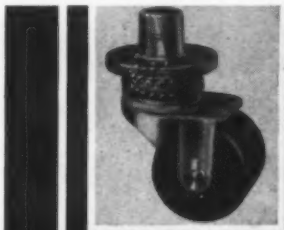

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Yes, if floors could talk you would, no doubt, hear some weird tales of mistreatment and neglect and of old age before their time . . . all caused thru the use of improper floor treatments and maintenance materials. Then too, there would be many, many floors who'd gratefully tell about Hillyard Floor Treatments and Maintenance Materials and how these materials have kept them young and attractive . . . and saved their owners money and labor too.

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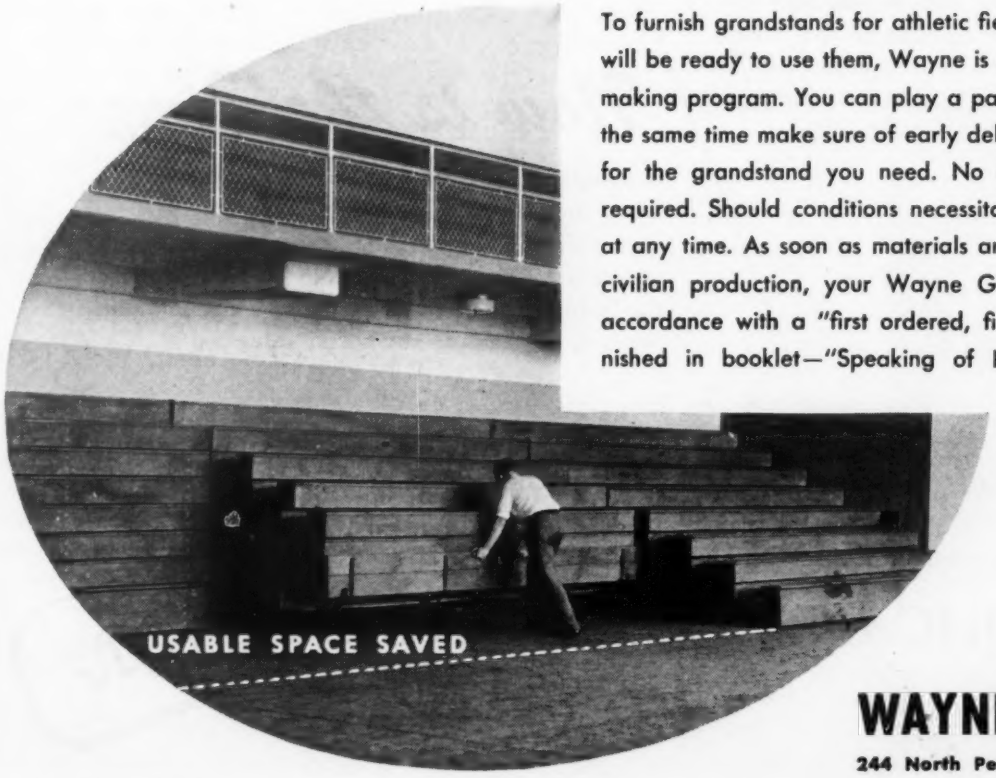

To furnish grandstands for athletic field or gymnasium to those who will be ready to use them, Wayne is cooperating in a National job-making program. You can play a part in this post war plan and at the same time make sure of early delivery by placing an order now for the grandstand you need. No down payment, no deposit is required. Should conditions necessitate, you may cancel the order at any time. As soon as materials and manpower are released for civilian production, your Wayne Grandstand will be shipped in accordance with a "first ordered, first shipped" plan. Details furnished in booklet—"Speaking of Post War Plans." Request it!

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Trained young men and women for the Printing Industry

Here is Opportunity

Have you prepared your postwar educational plans to train young men and women for this important major industry? . . . The United States Chamber of Commerce estimates a gain of 43% in the postwar graphic arts market over the peak year of 1929, or a gain of 75% over 1939.

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A printing department in your school will contribute richly to the end of all education . . . for printing is rich in artistic, informational, literary, mechanical and social values.

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ATF

What's New FOR SCHOOLS

Colored Bus Posters

Teach Safety to Children

Johnny-Go-Safely Says,
WHEN YOU ARE RIDING SCHOOL BUSES
FOLLOW THESE 10 RULES FOR SAFETY
STOP
SUPERIOR COACH CORPORATION LIMA OHIO

Designed especially for display in school buildings, the colorful new safety posters prepared by the Superior Coach Corporation will interest teachers, superintendents and other school officials desiring safer transportation for school children. The 18½ inch by 24½ inch poster features safety precautions that must be taken when riding in school buses. A supply of these posters can be had from Superior distributors or from the company's general offices.—**Superior Coach Corporation, Lima, Ohio.**

• *When inquiring, refer to* **NS862**

Plastic Tape Is Insulator

For Wires and Pipes

To protect exposed piping and insulate wires, cables and electrical equipment in school heating plants, "Fibron," a new plastic tape, has been announced by the Irvington Company. The insulating tape is flexible and elastic and can be used for splicing cables and protecting wiring, piping and equipment exposed to caustic or corrosive fumes, oils, grease, acids, alkalis or moisture.

Strong, heat sealing and flame resistant, the tape is manufactured from vinylite resin, a product of the Carbide and Chemicals Corporation. The manufacturer will offer generous samples on request.—**Irvington Varnish and Insulator Company, 6 Argyle Terrace, Irvington 11, N. J.**

• *When inquiring, refer to* **NS863**

Saf-T-Klenz Cleans Floors, Showers

By Chemical Action

For heavy duty cleaning of wash bowls, shower rooms, swimming pools, windows and skylights, the Berman Chemical Company has created Saf-T-Klenz especially for use in public institutions. Saf-T-Klenz is a chemical compound that will remove iron rust, lime deposits, soap oils, body grease and algae formations. The compound is sprinkled on the wet surface to be cleaned and softens the dirt so that it can be removed by mopping or scrubbing. Recommended for cleaning marble, terrazzo, glass, porcelain and vitreous surfaces, Saf-T-Klenz will leave no carbolic odor. —**Berman Chemical Company, Toledo 2, Ohio.**

• *When inquiring, refer to* **NS864**

Whizooka Roach Gun

Shoots Dust Into Cracks and Runways

Designed for industrial and institutional use, the "Whizooka" is a pump-action canister gun 2½ inches in diameter and 11 inches long that contains the insecticide Lethane A-70. Fully loaded for instant use, it is harmless to animals and human beings but discharges a dust to kill roaches, ants, silver fish and bed bugs.—**R. M. Hollingshead Corp., Camden, N. J.**

• *When inquiring, refer to* **NS865**

"Plumbers Enemy"

Uses Water Pressure to Clean Drains

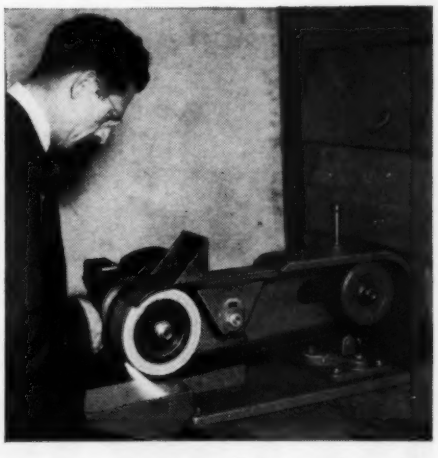
A new drain cleaner is the heavy rubber cup molded to provide a tight drain seal and a 3 foot industrial rubber hose that is attached to the faucet. Hot water is first used to expand the pipe; then cold water applied with full force coagulates the grease and contracts the pipe so that the grease drops off in chunks and is flushed away.

The "Plumbers Enemy" can be used with any drain ¾ inch to 4 inches in diameter and with any unthreaded faucet. The cup may be reversed and used as a suction-pressure pump for dislodging lint and hairs caught on the crossbars of the drain opening.—**R. S. Jones and Son, San Gabriel, Calif.**

• *When inquiring, refer to* **NS866**

Bench Belt Grinder

Adaptable for All Metals



School shop instructors will be interested in the new BBS Model belt grinder of the bench type. It provides a flat bed grinding area 2½ inches by 8 inches as well as a soft resilient contact wheel 7 inches in diameter by 2½ inches wide.

The grinder unit, which uses an endless metal cutting abrasive belt 2½ inches wide by 60 inches long, the manufacturer claims, is ideally suited for burring gears, weld grinding, generating radiuses, removing flash, flat and edge work, cleaning up and polishing. It can be furnished with or without a 1 h.p. motor.—**The Porter-Cable Machine Co., Syracuse, N. Y.**

• *When inquiring, refer to* **NS867**

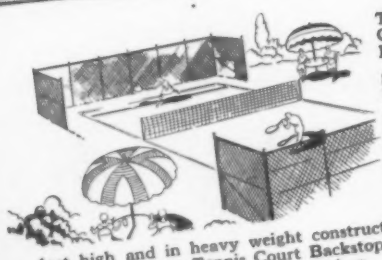
STEWART FENCES AND METAL SPECIALTIES

Stewart Tennis Court and Baseball Backstops are now available, without a priority, to those participating in the U. S. Office of Education Victory Corps Program. Other products available, but subject to favorable action on an appeal to WPB, are Chain Link Wire Fence, Window Guards, Folding Gates and Wire Partitions. Write for Catalogue No. 79. Please mention specifically products in which you are interested.

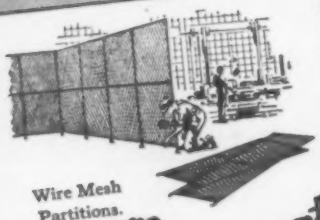
BASEBALL BACKSTOPS

Standard Backstop as available under U. S. Victory Corps Program is 20 feet wide and 12 feet high with 10 foot wing set at an angle on either side. Above the 20 foot center section is a 4 foot overhang to deflect upbounding balls.

TENNIS COURT BACKSTOPS



Stewart Chain Link Wire Tennis Court Backstops are sturdily constructed, and all materials are hot dipped galvanized. They are now available 12 foot high and in heavy weight construction. You may be sure that Stewart Tennis Court Backstops will give dependable service over long periods of time.



Wire Mesh Partitions.

Stewart Wire Mesh Partitions and Window Guards are quickly and easily installed. Partitions are sectional and made to fit any height or width. Ideal for locker rooms, supply rooms, stock rooms, etc.

IRON and WIRE

Stewart FENCES

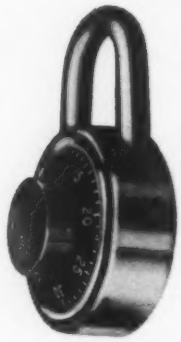
THE STEWART IRON WORKS CO., Inc.

1136 Stewart Block, Cincinnati 1, Ohio

What's New FOR SCHOOLS

Self-Closing Shackle Lock

Eliminates Lost Locker Keys



School authorities who are troubled with the problem of lost or stolen locker keys may find a solution in the new "shackle" lock that is available in thousands of different combinations. The lock is a three number combination designed to give years of service and is finished in bright or plain zinc with a black enameled dial of white lines and figures. All mechanical parts are rustproof. The locks can be obtained with an AA-2, MRO priority rating.—**National Lock Company, Rockford, Ill.**

• *When inquiring, refer to* **NS868**

NEW CATALOGS

Minwax Bulletin

Explains Weatherproofing Details

A bulletin on the use of calking compounds has been published by the **Minwax Company, Inc., 11 West Forty-Second Street, New York 18.** Illustrations are given of schools, hospitals and other buildings that have used Minwax calking materials and weathercap. Results of research in weatherproofing joints for the life of the structure and sources of wall leakage are explained, together with cost, application and installation details.

• *When inquiring, refer to* **NS869**

History of a Business

It's Procter and Gamble's

"Into a Second Century" is the new illustrated 50 page book published by the **Procter and Gamble Company, Cincinnati 1.** The story of the company's growth from a small soap and candle factory to a large industrial corporation, the book also reflects the advances in all business during the last one hundred years. Colored illustrations and actual photographs help show the development.

• *When inquiring, refer to* **NS870**

Story of Fleur-O-Lier

Told in Catalog

In "50 Standards for Satisfaction" published by the **Electrical Testing Laboratories, New York City,** the story of fluorescent lighting and suggestions for its purchase by schools and other institutions are stated. An outline is given of the 50 specifications set up by the Mazda lamp manufacturers of the standards to be followed by the group of independent manufacturers that developed Fleur-O-Lier lighting. Included with the booklet is a list of Fleur-O-Lier manufacturers certified by the Electrical Testing Laboratories

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Write for prices and shipping information, stating quantity needed. If you do not have our new No. 78 catalog, ask for your copy.

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Right now all National chemically-treated, hard Vulcanized Fibre is restricted to war uses. But there will come a day when reliable Vul-Cots will again be made.

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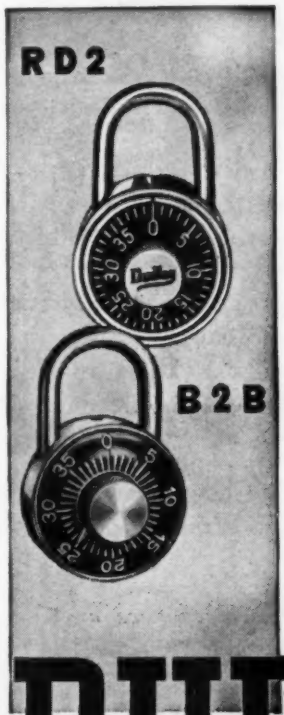

Yes, you *can* buy security!

Millions of Dudley locks are in use throughout the country today. And each purchaser of the Dudley combination lock buys security for his belongings against theft.

Long a favorite in schools, Dudley locker locks are stronger, offer more protection, have greater resistance to picking.

RD-2— Rotating dial, highly finished in black enamel. Finely engineered parts. Self-locking. 64,000 possible combinations.

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LOCK CORPORATION
DEPT. 1010 570 W. MONROE ST. CHICAGO 6, ILL

Photo courtesy U. S. Merchant Marine Cadet Basic School. San Mateo, California, shows Spencer Model VA Delineascope for lantern slide and opaque projection.

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SCIENTIFIC INSTRUMENT DIVISION OF
AMERICAN OPTICAL COMPANY

What's New FOR SCHOOLS

in compliance with the manufacturers' 50 specifications.

• *When inquiring, refer to* **NS871**

Sound Conditioning for Schools
Explained in New Booklet

An illustrated booklet describing Acousti-Celotex sound conditioning has just been issued by the **Celotex Corporation, Chicago.** Photographs of schools and universities are used to demonstrate its uses and advantages and a question and answer section helps explain sound conditioning problems for schools.

• *When inquiring, refer to* **NS872**

How Plastic Cork Coating
Prevents Condensation Drip

What it is and how to use it are described in the detailed NoDrip handbook of the **J. W. Mortell Company, Kankakee, Ill.** An insulation type of coating, NoDrip prevents condensation drip resulting from changes in temperature from metal, concrete, brick, wood, plaster or composition surfaces. By means of pictures and diagrams, methods of application by hand, brush, trowel and sprayer are described. A residential tank chart, pipe coverage chart and humidity chart will help the user to determine the quantity and thickness of NoDrip. The handbook also describes how NoDrip will aid in preserving pipe and other metal equipment by preventing rust and corrosion and includes a price list of NoDrip plastic cork coating, NoDrip primer and NoDrip bleeding sealer.

• *When inquiring, refer to* **NS873**

New Film Guide
Has Complete List of Free Materials

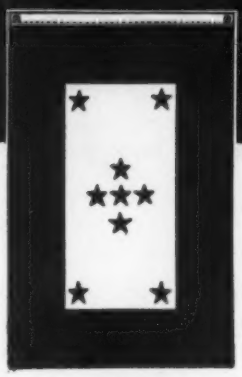
The fourth annual edition of the Educators Guide to Free Films has just been published by the **Educators Progress Service, Randolph, Wis.** This edition replaces all preceding volumes and provides an up-to-date list of 2165 films, of which 444 are 16 mm. silent; 1185 are 16 mm. sound; 206 are 35 mm. silent, and 330 are 35 mm. sound. The bound edition has a subject classification, title index, source index and a list of 203 slidefilms.

• *When inquiring, refer to* **NS874**

FILM RELEASES

Fundamental Farm Skills—16 mm. A series of 10 films running from fourteen to thirty-one minutes produced by the Office of Education to speed up training of farm workers. Six films show future farmers the maintenance and repair of farm equipment and four films teach horseshoeing, sheep shearing, community canning and repainting of frame buildings. Film strips are also available which

A SERVICE FLAG FOR YOUR SCHOOL



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The Dutch Tradition—16 mm. sound. 27 minutes. Documentary film of the people of Holland and the Indies, their background in time of peace and their contribution to the war. Being shown to U. S. armed forces.—**Released by Bureau of Motion Pictures, Office of War Information, and distributed by Brandon Films, Inc., 1600 Broadway, New York City 19.**

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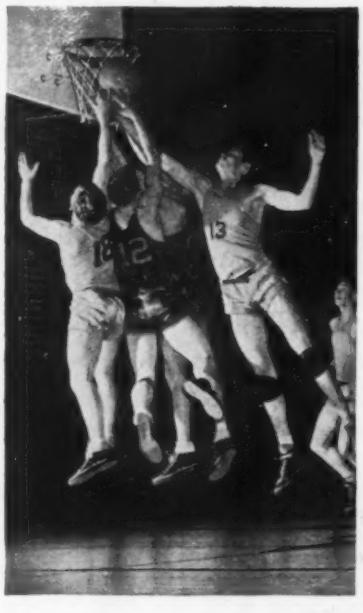

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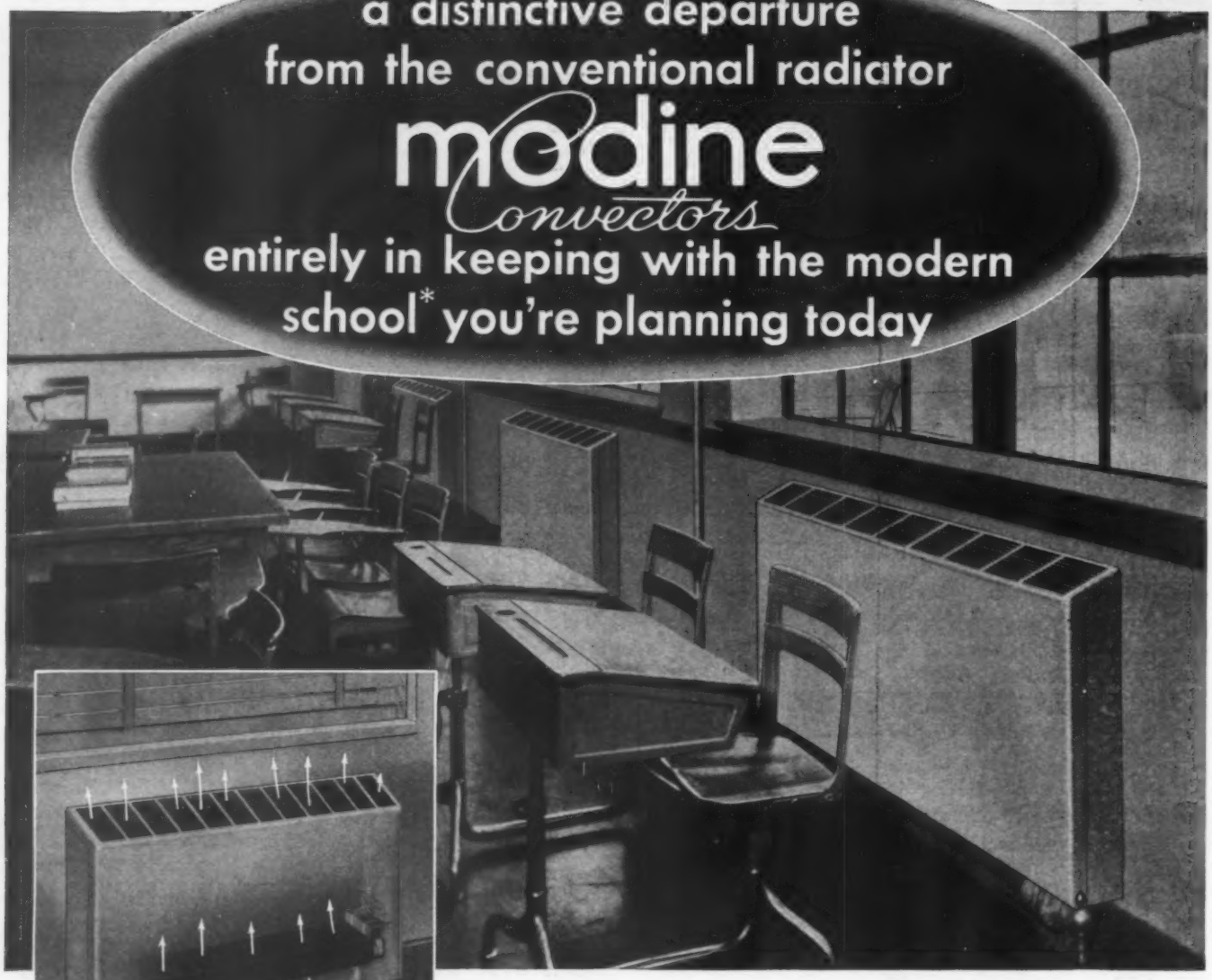

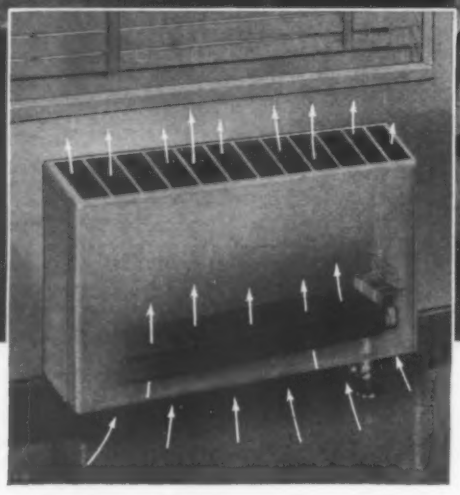

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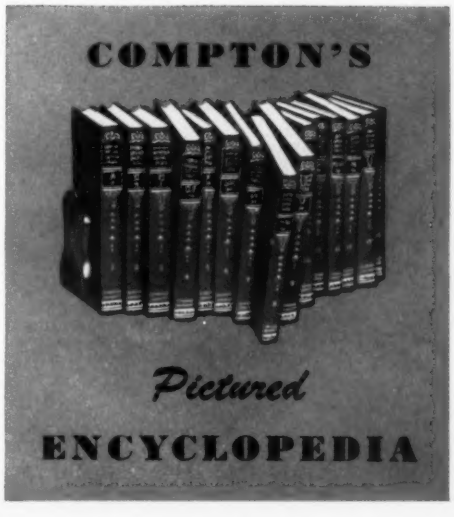

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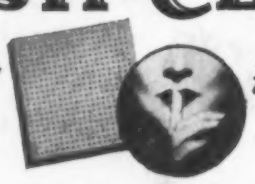
*Perforated  *Fibre Tile* SINCE 1925

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